



*LWN.net*

**From:** Jacques Gelinas <jack@solucorp.qc.ca>  
**To:** Linux kernel list <linux-kernel@vger.kernel.org>  
**Subject:** Announce: many virtual servers on a single box  
**Date:** Thu, 11 Oct 2001 01:06:32 -0500

I have enhanced the kernel to allow several independant virtual servers running on the same box (sharing the same kernel as well). I introduced 2 new system calls (`new_s_context` and `set_ipv4root`) allowing much independance between the virtual servers. Virtual servers are independant enough and "real" enough that you can supply root password to the virtual server administrators. Virtual servers may be described

-May run various network services, binding to the same ports without special configuration. Services are started normally (sysv script, whatever the distro you are using).

-Have independant process list, so they can't interfere. You can't see or send signal to process in other vservers (or the root server)

-I have also modified the capability system a little, so those virtual server administrators can't take over the machine. I have introduced a per-process capability ceiling, inherited by sub-process. Even `setuid` program can't grab more capabilities..

-Update packages normally, create users, Use any admin procedure/tool

Maybe such a project has already been done. Anyway, I have written a lot of documentation about it (how it works, pro and con and so on). It works on top of 2.4.10 or 2.4.11 (probably anything). I would really like to get some comments.

You can find all the documentation and packages at  
[http://www.solucorp.qc.ca/miscprj/s\\_context hc](http://www.solucorp.qc.ca/miscprj/s_context hc)

All this is GPL...

-----  
Jacques Gelinas <jack@solucorp.qc.ca>  
vservers: run general purpose virtual servers on one box, full speed!  
[http://www.solucorp.qc.ca/miscprj/s\\_context hc](http://www.solucorp.qc.ca/miscprj/s_context hc)

-  
To unsubscribe from this list: send the line "unsubscribe linux-kernel" in the body of a message to majordomo@vger.kernel.org  
More majordomo info at <http://vger.kernel.org/majordomo-info.html>  
Please read the FAQ at <http://www.tux.org/lkml/>