
Subject: Container Test Campaign

Posted by [Clement Calmels](#) on Wed, 07 Jun 2006 14:20:12 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hello !

I'm part of a team of IBMers working on lightweight containers and we are going to start a new test campaign. Candidates are vserver, vserver context, namespaces (being pushed upstream), openvz, mcr (our simple container dedicated to migration) and eventually xen.

We will focus on the performance overhead but we are also interested in checkpoint/restart and live migration. A last topic would be how well the resource managment criteria are met, but that's extra for the moment.

We plan on measuring performance overhead by comparing the results on a vanilla kernel with a partial and with a complete virtual environment. By partial, we mean the patched kernel and a 'namespace' virtualisation.

Test tools

o For network performance :

- * netpipe (<http://www.scl.ameslab.gov/netpipe/>)
- * netperf (<http://www.netperf.org/netperf/NetperfPage.html>)
- * tbench (<http://samba.org/ftp/tridge/dbench/README>)

o Filesystem :

- * dbench (<http://samba.org/ftp/tridge/dbench/README>)
- * iозone (<http://www.iozone.org/>)

o General

- * kernbench (<http://ck.kolivas.org/kernbench/>) stress cpu and filesystem through kernel compilation
- * More 'real world' application could be used, feel free to submit candidates...

We have experience on C/R and migration so we'll start with our own scenario, migrating oracle under load. The load is generated by DOTS (<http://ltp.sourceforge.net/dotshowto.php>).

If you could provided us some material on what has already been done : URL, bench tools, scenarios. We'll try to compile them in. configuration hints and tuning are most welcome if they are reasonable.

Results, tools, scenarios will be published on lxc.sf.net . We will set up the testing environment so as to be able to accept new versions, patches, test tools and rerun the all on demand. Results, tools, scenarios will be published on lxc.sf.net.

thanks !

Clement,
