Subject: [ANNOUNCE] OpenVZ releases checkpointing/live migration of processes
Posted by Kirill Korotaev on Thu, 20 Apr 2006 17:14:23 GMT
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Hello,

OpenVZ team is proud to announce the release of the new checkpointing/restore feature. This feature allows to save (checkpoint) and restore the whole state of a Virtual Environment (VE, container) and do a live migration of a VE to another physical box while preserving process states and TCP/IP connections.

During live migration the in-kernel state of processes and their resources (including memory, registers, IPC, pids, open files, sockets, etc.) is saved and then restored on another machine. Since all network connections are preserved with all the in-progess requests, user doesn't experience interruption of service.

The feature is available on i686 and x86_64 architectures. Migration of 32bit VEs between i686 and x86_64 architectures is also supported. Current implementation works fine with complex applications like Oracle, Java, X apps.

Latest 2.6.16 OpenVZ kernel and tool packages with live migration support are available here:
http://openvz.org/download/beta/kernel/
http://openvz.org/download/utils/

GIT repository for all OpenVZ sources is available at
http://git.openvz.org/

Usage examples
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New 'vzmigrate' utility is used for VE migration. Also, new commands for 'vzctl' allowing to dump and restore VE were introduced: 'chkpnt' and 'restore'.

To save current VE state with all processes:
vzctl chkpnt <VEID>

To restore VE after checkpointing:
vzctl restore <VEID>

To perform online migration of VE #101 to another machine:
vzmigrate --online destination.node.com 101
without '--online' option vzmigrate does offline VE migration with VE start/stop.
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With best regards,
OpenVZ team.