Subject: [RFC PATCH v8 0/5] IPC: checkpoint/restore in userspace enhancements
Posted by Stanislav Kinsbursky on Wed, 24 Oct 2012 15:34:51 GMT
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v8:
This respin of the patch set was significantly reworked. Most part of new API
was replaced by sysctls (by one per messages, semaphores and shared memory),
allowing to preset desired id for next new IPC object.

This patch set is aimed to provide additional functionality for all IPC
objects, which is required for migration of these objects by user-space
checkpoint/restore utils (CRIU).

The main problem here was impossibility to set up object id. This patch set
solves the problem by adding new sysctls for preset of desired id for new IPC
object.

Another problem was to peek messages from queues without deleting them.
This was achived by introducing of new MSG_COPY flag for sys_msgrcv(). If
MSG_COPY flag is set, then msgtyp is interpreted as message number.

The following series implements...

Stanislav Kinsbursky (5):
    ipc: remove forced assignment of selected message
    ipc: add sysctl to specify desired next object id
    ipc: message queue receive cleanup
    ipc: message queue copy feature introduced
    test: IPC message queue copy feture test

 include/linux/ipc_namespace.h | 1
 include/linux/msg.h | 5 -
 include/uapi/linux/msg.h | 1
 ipc/compat.c | 45 ++++----
 ipc/ipc_sysctl.c | 28 ++++
 ipc/msg.c | 99 ++++++++++++++++----
 ipc/msgutil.c | 38 ++++++
 ipc/util.c | 16 ++
 ipc/util.h | 2
 tools/testing/selftests/ipc/Makefile | 25 ++++
 tools/testing/selftests/ipc/msgque.c | 231 ++
 11 files changed, 432 insertions(+), 59 deletions(-)
 create mode 100644 tools/testing/selftests/ipc/Makefile
 create mode 100644 tools/testing/selftests/ipc/msgque.c