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Subject: Re: [PATCH v7 09/10] IPC: message queue copy feature introduced  
Posted by [Michael Kerrisk \(man\)](#) on Thu, 18 Oct 2012 10:39:09 GMT  
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On Thu, Oct 18, 2012 at 12:23 PM, Stanislav Kinsbursky

<[skinsbursky@parallels.com](mailto:skinsbursky@parallels.com)> wrote:

- > This patch is required for checkpoint/restore in userspace.
- > IOW, c/r requires some way to get all pending IPC messages without deleting
- > them from the queue (checkpoint can fail and in this case tasks will be resumed,
- > so queue have to be valid).
- > To achive this, new operation flag MSG\_COPY for sys\_msgrcv() system call was
- > introduced. If this flag was specified, then mtype is interpreted as number of
- > the message to copy.
- > If MSG\_COPY is set, then kernel will allocate dummy message with passed size,
- > and then use new copy\_msg() helper function to copy desired message (instead of
- > unlinking it from the queue).
- >
- > Notes:
- > 1) Return -ENOSYS if MSG\_COPY is specified, but CONFIG\_CHECKPOINT\_RESTORE is
- > not set.

Stanislav,

A naive question, because I have not followed C/R closely. How do you deal with the case that other processes may be reading from the queue? (Or is that disabled during checkpointing?)

Thanks,

Michael

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