
Subject: Re: [PATCH] block layer: ioprio_best function fix
Posted by [Jens Axboe](#) on Thu, 12 Oct 2006 13:09:07 GMT

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On Thu, Oct 12 2006, Vasily Tarasov wrote:

- > Currently ioprio_best function first checks wethere aioprio or bioprio equals
- > IOPRIO_CLASS_NONE (ioprio_valid() macros does that) and if it is so it returns
- > bioprio/aioprio appropriately. Thus the next four lines, that set aclass/bclass
- > to IOPRIO_CLASS_BE, if aclass/bclass == IOPRIO_CLASS_NONE, are never executed.
- >
- > The second problem: if aioprio from class IOPRIO_CLASS_NONE and bioprio from
- > class IOPRIO_CLASS_IDLE are passed to ioprio_best function, it will return
- > IOPRIO_CLASS_IDLE. It means that during __make_request we can merge two
- > requests and set the priority of merged request to IDLE, while one of
- > the initial requests originates from a process with NONE (default) priority.
- > So we can get a situation when a process with default ioprio will experience
- > IO starvation, while there is no process from real-time class in the system.
- >
- > Just removing ioprio_valid check should correct situation.

Analysis looks correct, thanks.

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Jens Axboe
