
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
