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Subject: [PATCH] cfq: async queue allocation per priority  
Posted by [Vasily Tarasov](#) on Wed, 18 Jul 2007 14:35:49 GMT  
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Jens, I think the last patch, that makes queues allocation per priority, has a problem.

If we have two processes with different `ioprio_class`, but the same `ioprio_data`, their async requests will fall into the same queue. I guess such behavior is not expected, because it's not right to put real-time requests and best-effort requests in the same queue.

The attached patch fixes the problem by introducing additional `*cfqq` fields on `cfqd`, pointing to per-(class,priority) async queues.

Thanks,  
Vasily

#### File Attachments

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1) [diff-cfq-asyn-queues-per-prio](#), downloaded 322 times

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Subject: Re: [PATCH] cfq: async queue allocation per priority  
Posted by [Jens Axboe](#) on Wed, 18 Jul 2007 18:51:45 GMT  
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On Wed, Jul 18 2007, Vasily Tarasov wrote:

> Jens, I think the last patch, that makes queues allocation per priority,  
> has a problem.

>

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> `ioprio_data`, their async requests will fall into the same queue. I guess  
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> fields on `cfqd`, pointing to per-(class,priority) async queues.

Ugh yes. I'm pretty tempted just to reinstate the `cfqq` hash again, it used to be a clean up but now the it's not stacking up so well.

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Jens Axboe

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Subject: Re: [PATCH] cfq: async queue allocation per priority

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Posted by [Vasily Tarasov](#) on Thu, 19 Jul 2007 07:52:36 GMT

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On Wed, 2007-07-18 at 20:51 +0200, Jens Axboe wrote:

> On Wed, Jul 18 2007, Vasily Tarasov wrote:

> > Jens, I think the last patch, that makes queues allocation per priority,  
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> >

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> used to be a clean up but now the it's not stacking up so well.

>

Hello, Jens,

>From my humble point of view `cfqq` hash has two problems:

1. It is excess data structure. All needed information can be obtained from other structures easily, so the presence of hash is a bit strange... I mean that it's aim is not obvious :)

2. Hash hides from a developer a pretty important concept of CFQ: there are shared between processes per-priority async queues. I think the code is the best documentation, so the explicit `cfqq` pointers at `cfqd` structure reveal this concept greatly.

Summary:

IMHO the hash revival is not very good way. However, this is of course fully in your competence to choose the right decision! ;)

Thank you,  
Vasily

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Subject: Re: [PATCH] `cfq`: async queue allocation per priority

Posted by [Jens Axboe](#) on Thu, 19 Jul 2007 17:30:53 GMT

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On Thu, Jul 19 2007, Vasily Tarasov wrote:

> On Wed, 2007-07-18 at 20:51 +0200, Jens Axboe wrote:

> > On Wed, Jul 18 2007, Vasily Tarasov wrote:  
> > > Jens, I think the last patch, that makes queues allocation per priority,  
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> are shared between processes per-priority async queues. I think the code  
> is the best documentation, so the explicit async cfqq pointers at cfqd  
> structure reveal this concept greatly.  
>  
> Summary:  
>  
> IMHO the hash revival is not very good way. However, this is of course  
> fully in your competence to choose the right decision! ;)

Yeah, it's probably still better off without the hash. I'll play with it  
a bit and see what comes of it.

--  
Jens Axboe

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