Subject: Re: [dm-devel] [PATCH 0/2] dm-band: The I/O bandwidth controller: Overview

Posted by Alasdair G Kergon on Wed, 23 Jan 2008 14:47:17 GMT View Forum Message <> Reply to Message

On Wed, Jan 23, 2008 at 09:53:50PM +0900, Ryo Tsuruta wrote:

> Dm-band gives bandwidth to each job according to its weight,

> which each job can set its own value to.

> At this time, a job is a group of processes with the same pid or pgrp or uid.

It seems to rely on 'current' to classify bios and doesn't do it until the map function is called, possibly in a different process context, so it won't always identify the original source of the I/O correctly: people need to take this into account when designing their group configuration and so this should be mentioned in the documentation.

I've uploaded it here while we consider ways we might refine the architecture and interfaces etc.:

http://www.kernel.org/pub/linux/kernel/people/agk/patches/2.6/editing/dm-add-band-target.patch

Alasdair

agk@redhat.com

Containers mailing list Containers@lists.linux-foundation.org https://lists.linux-foundation.org/mailman/listinfo/containers

Subject: Re: [dm-devel] [PATCH 0/2] dm-band: The I/O bandwidth controller: Overview Posted by Hirokazu Takahashi on Wed, 23 Jan 2008 16:21:03 GMT View Forum Message <> Reply to Message

Hi,

> On Wed, Jan 23, 2008 at 09:53:50PM +0900, Ryo Tsuruta wrote:

- > > Dm-band gives bandwidth to each job according to its weight,
- > > which each job can set its own value to.
- > At this time, a job is a group of processes with the same pid or pgrp or uid.
- > It seems to rely on 'current' to classify bios and doesn't do it until the map
- > function is called, possibly in a different process context, so it won't
- > always identify the original source of the I/O correctly:

Yes, this should be mentioned in the document with the current implementation as you pointed out.

By the way, I think once a memory controller of cgroup is introduced, it will help to track down which cgroup is the original source.

> people need to take

> this into account when designing their group configuration and so this should

> be mentioned in the documentation.

>

> I've uploaded it here while we consider ways we might refine the architecture and

> interfaces etc.:

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>

http://www.kernel.org/pub/linux/kernel/people/agk/patches/2.6/editing/dm-add-band-target.patch >

> Alasdair

> --

> agk@redhat.com

Thank you, Hirokazu Takahashi.

Containers mailing list Containers@lists.linux-foundation.org https://lists.linux-foundation.org/mailman/listinfo/containers

Subject: Re: [dm-devel] [PATCH 0/2] dm-band: The I/O bandwidth controller: Overview

Posted by yamamoto on Thu, 24 Jan 2008 03:38:07 GMT View Forum Message <> Reply to Message

> Hi,

>

> > On Wed, Jan 23, 2008 at 09:53:50PM +0900, Ryo Tsuruta wrote:

> > Dm-band gives bandwidth to each job according to its weight,

> > > which each job can set its own value to.

> > At this time, a job is a group of processes with the same pid or pgrp or uid.

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> > function is called, possibly in a different process context, so it won't

> > always identify the original source of the I/O correctly:

>

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 as you pointed out.

>

> By the way, I think once a memory controller of cgroup is introduced, it will > help to track down which cgroup is the original source.

> help to track down which cgroup is the original source.

YAMAMOTO Takashi

Containers mailing list Containers@lists.linux-foundation.org https://lists.linux-foundation.org/mailman/listinfo/containers

Subject: Re: [dm-devel] [PATCH 0/2] dm-band: The I/O bandwidth controller: Overview

Posted by Hirokazu Takahashi on Thu, 24 Jan 2008 10:14:56 GMT View Forum Message <> Reply to Message

Hi,

> > > On Wed, Jan 23, 2008 at 09:53:50PM +0900, Ryo Tsuruta wrote:

>>> Dm-band gives bandwidth to each job according to its weight,

>>> which each job can set its own value to.

> > > At this time, a job is a group of processes with the same pid or pgrp or uid.

> >> It seems to rely on 'current' to classify bios and doesn't do it until the map

> >> function is called, possibly in a different process context, so it won't

> > > always identify the original source of the I/O correctly:

> >

> > Yes, this should be mentioned in the document with the current implementation

> > as you pointed out.

> >

> > By the way, I think once a memory controller of cgroup is introduced, it will

> > help to track down which cgroup is the original source.

>

> do you mean to make this a part of the memory subsystem?

I just think if the memory subsystem is in front of us, we don't need to reinvent the wheel.

But I don't have a concrete image how the interface between dm-band and the memory subsystem should be designed yet. I'd be appreciate if some of the cgroup developers give some ideas about it.

Thanks, Hirokazu Takahashi.

> YAMAMOTO Takashi

Containers mailing list

Subject: Re: [dm-devel] [PATCH 0/2] dm-band: The I/O bandwidth controller: Overview

Posted by yamamoto on Fri, 25 Jan 2008 06:26:41 GMT View Forum Message <> Reply to Message

> Hi,

>

> > > > On Wed, Jan 23, 2008 at 09:53:50PM +0900, Ryo Tsuruta wrote: >>>> Dm-band gives bandwidth to each job according to its weight, >>>> which each job can set its own value to. >>>> At this time, a job is a group of processes with the same pid or pgrp or uid. >>>> >>>> It seems to rely on 'current' to classify bios and doesn't do it until the map >>> function is called, possibly in a different process context, so it won't >>> always identify the original source of the I/O correctly: >>> > > Yes, this should be mentioned in the document with the current implementation > > > as you pointed out. >>> >>> By the way, I think once a memory controller of cgroup is introduced, it will >> help to track down which cgroup is the original source. > > > > do you mean to make this a part of the memory subsystem? > > I just think if the memory subsystem is in front of us, we don't need to > reinvent the wheel. > > But I don't have a concrete image how the interface between dm-band and > the memory subsystem should be designed yet. I'd be appreciate if some of > the cgroup developers give some ideas about it.

the current implementation of memory subsystem associates pages to cgroups directly, rather than via tasks. so it isn't straightforward to use the information for other classification mechanisms like yours which might not share the view of "hierarchy" with the memory subsystem.

YAMAMOTO Takashi

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>
> Thanks.
> Hirokazu Takahashi.
>
> YAMAMOTO Takashi
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