Subject: Re: [Xen-devel] dm-band: The I/O bandwidth controller: Performance Report

Posted by INAKOSHI Hiroya on Tue, 29 Jan 2008 06:42:17 GMT

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Hi,

Ryo Tsuruta wrote:
> The results of bandwidth control test on band-groups.
> ===
> The configurations of the test #3:
>   o Prepare three partitions sdb5 and sdb6.
>   o Create two extra band-groups on sdb5, the first is of user1 and the
>   second is of user2.
>   o Give weights of 40, 20, 10 and 10 to the user1 band-group, the user2
>   band-group, the default group of sdb5 and sdb6 respectively.
>   o Run 128 processes issuing random read/write direct I/O with 4KB data
>   on each device at the same time.

you mean that you run 128 processes on each user-device pairs? Namely,
I guess that

  user1: 128 processes on sdb5,
  user2: 128 processes on sdb5,
  another: 128 processes on sdb5,
  user2: 128 processes on sdb6.

> Conclusions and future works
> ============================
> Dm-band works well with random I/Os. I have a plan on running some tests
> using various real applications such as databases or file servers.
> If you have any other good idea to test dm-band, please let me know.

The second preliminary studies might be:

- What if you use a different I/O size on each device (or device-user pair)?
- What if you use a different number of processes on each device (or
device-user pair)?

And my impression is that it's natural dm-band is in device-mapper,
separated from I/O scheduler. Because bandwidth control and I/O
scheduling are two different things, it may be simpler that they are
implemented in different layers.

Regards,

Hiroya.

>
> Thank you,
> Ryo Tsuruta.
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> _____
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