## Subject: Re: [RFC][v2][patch 0/12][CFQ-cgroup]Yet another I/O bandwidth controlling subsystem for CGroups bas
Posted by Ryo Tsuruta on Fri, 25 Apr 2008 09:54:44 GMT

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Hi,

I report benchmark results of the following I/O bandwidth controllers.

From: Vasily Tarasov <vtaras@openvz.org>
Subject: [RFC][PATCH 0/9] cgroups: block: cfq: I/O bandwidth
        controlling subsystem for CGroups based on CFQ
Date: Fri, 15 Feb 2008 01:53:34 -0500

From: "Satoshi UCHIDA" <s-uchida@ap.jp.nec.com>
Subject: [RFC][v2][patch 0/12][CFQ-cgroup]Yet another I/O bandwidth
        controlling subsystem for CGroups based on CFQ
Date: Thu, 3 Apr 2008 16:09:12 +0900

The test procedure is as follows:
  o Prepare 3 partitions sdc2, sdc3 and sdc4.
  o Run 100 processes issuing random direct I/O with 4KB data on each
    partitions.
  o Run 3 tests:
    #1 issuing read I/O only.
    #2 issuing write I/O only.
    #3 sdc2 and sdc3 are read, sdc4 is write.
  o Count up the number of I/Os which have done in 60 seconds.

Unfortunately, both bandwidth controllers didn't work as I expected,
On the test #3, the write I/O ate up the bandwidth regardless of the
specified priority level.

                 Vasily's scheduler
           The number of I/Os (percentage to total I/Os)

| partition     | sdc2         | sdc3         | sdc4         | total  |
| priority      | 7(highest)   | 4            | 0(lowest)    | I/Os   |
|---------------|--------------|--------------|--------------|--------|
| #1 read       | 3620(35.6%)  | 3474(34.2%)  | 3065(30.2%)  | 10159  |
| #2 write      | 21985(36.6%) | 19274(32.1%) | 18856(31.4%) | 60115  |
| #3 read&write | 5571( 7.5%)  | 3253( 4.4%)  | 64977(88.0%) | 73801  |

                 Satoshi's scheduler
           The number of I/Os (percentage to total I/O)

| partition     | sdc2         | sdc3         | sdc4         | total  |

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| priority     | 0(highest) |    4     | 7(lowest)  | I/Os  |
|--------------+------------+----------+------------|-------|
| #1 read      | 4523(47.8%) | 3733(39.5%) | 1204(12.7%) |  9460 |
| #2 write     | 65202(59.0%) | 35603(32.2%) | 9673( 8.8%) | 110478 |
| #3 read&write | 5328(23.0%) | 4153(17.9%) | 13694(59.1%) | 23175 |
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I'd like to see other benchmark results if anyone has.

Thanks,
Ryo Tsuruta