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Subject: [PATCH -mm 0/3] cgroup: block device i/o bandwidth controller (v6)

Posted by [Andrea Righi](#) on Tue, 15 Jul 2008 20:40:46 GMT

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The objective of the i/o bandwidth controller is to improve i/o performance predictability of different cgroups sharing the same block devices.

Respect to other priority/weight-based solutions the approach used by this controller is to explicitly choke applications' requests that directly (or indirectly) generate i/o activity in the system.

The direct bandwidth limiting method has the advantage of improving the performance predictability at the cost of reducing, in general, the overall performance of the system (in terms of throughput).

Detailed informations about design, its goal and usage are described in the documentation.

Tested against 2.6.26-rc8-mm1.

The all-in-one patch (and previous versions) can be found at:  
<http://download.systemimager.org/~arighi/linux/patches/io-throttle/>

Changelog: (v5 -> v6)

- do not make kernel threads to sleep
- do not throttle i/o for pages that need to be urgently reclaimed in `submit_bio(READ, ...)` (i.e. tasks such as `pdflush` and `kswapd` when performing writeout)
- minor fixes and improvements (thanks to Li Zefan review)
- fixed a small typo in the documentation (reported by Marco Innocenti)

TODO:

- see documentation

-Andrea

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