Subject: [PATCH -mm 0/3] cgroup: use hash table for css_set
Posted by Li Zefan on Thu, 03 Apr 2008 05:52:33 GMT

(rebase on 2.6.25-rc8-mm1)

hen we attach a process to a different cgroup, the css_set linked-list
will be run through to find a suitable existing css_set to use. This
patch set uses a hash table for better performance.

As we add the hash table, we can totally remove the css_set linked-list.
When we have to run through the linked-list, we can run through the
hash table instead.

I tested the following benmarks:

For N in 1, 5, 10, 50, 100, 500, 1000, create N cgroups with one sleeping
task in each, and then move an additional task through each cgroup in
turn.

Here is a test result:

```
N Loop orig - Time(s) hash - Time(s)
-------------------------------------------
1 10000 1.201231728 1.196311177
5 2000 1.065743872 1.040566424
10 1000 0.991054735 0.986876440
50 200 0.976554203 0.969608733
100 100 0.998504680 0.969218270
500 20 1.157347764 0.962602963
1000 10 1.619521852 1.085140172
```

Regards,
Li Zefan

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