Subject: [PATCH] Report usage in CFS cgroup
Posted by menage on Mon, 29 Oct 2007 17:19:08 GMT
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Report CPU usage in CFS Cgroup directories

Adds a cpu.usage file to the CFS cgroup that reports CPU usage in
milliseconds for that cgroup's tasks

Signed-off-by: Paul Menage <menage@google.com>

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 kernel/sched.c | 36 ++++++++++++++++++++++++++++++++++++-----
 1 file changed, 31 insertions(+), 5 deletions(-)

Index: container-2.6.23-mm1/kernel/sched.c
===
--- container-2.6.23-mm1.orig/kernel/sched.c
+++ container-2.6.23-mm1/kernel/sched.c
@@ -7005,15 +7005,41 @@ static u64 cpu_shares_read_uint(struct c
  return (u64) tg->shares;
 }

-static struct cftype cpu_shares = {
- .name = "shares",
- .read_uint = cpu_shares_read_uint,
- .write_uint = cpu_shares_write_uint,
+static u64 cpu_usage_read(struct cgroup *cgrp, struct cftype *cft)
+{
+ struct task_group *tg = cgroup_tg(cgrp);
+ int i;
+ u64 res = 0;
+ for_each_possible_cpu(i) {
+ unsigned long flags;
+ /*
+   * Lock to prevent races with updating 64-bit counters
+   * on 32-bit arches.
+   */
+ spin_lock_irqsave(&cpu_rq(i)->lock, flags);
+ res += tg->se[i]->sum_exec_runtime;
+ spin_unlock_irqrestore(&cpu_rq(i)->lock, flags);
+ }
+ /* Convert from ns to ms */
+ do_div(res, 1000000);
+ return res;
+}
+
+static struct cftype cpu_files[] = {

```
+ {
+  .name = "shares",
+  .read_uint = cpu_shares_read_uint,
+  .write_uint = cpu_shares_write_uint,
+ },
+ {
+  .name = "usage",
+  .read_uint = cpu_usage_read,
+ },
 };

 static int cpu_cgroup_populate(struct cgroup_subsys *ss, struct cgroup *cont)
 {
- return cgroup_add_file(cont, ss, &cpu_shares);
+ return cgroup_add_files(cont, ss, cpu_files, ARRAY_SIZE(cpu_files));
 }

 struct cgroup_subsys cpu_cgroup_subsys = {
```

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Containers mailing list
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