Subject: Re: [RFC][-mm] [1/2] Simple stats for cpu resource controller
Posted by Balaji Rao on Thu, 10 Apr 2008 16:09:59 GMT
View Forum Message <> Reply to Message

On Monday 07 April 2008 06:54:53 pm Peter Zijlstra wrote:
> On Sun, 2008-04-06 at 02:01 +0530, Balaji Rao wrote:
>
> > > > +static s64 cpu_cgroup_read_stat(struct cpu_cgroup_stat *stat,
> > > > + enum cpu_cgroup_stat_index idx)
> > > > +{
> > > > + int cpu;
> > > > + s64 ret = 0;
> > > > + unsigned long flags;
> > >
> > > > +
> > > > + local_irq_save(flags);
> > >
> > I am just wondering. Is local_irq_save() enough?
> > >
> > Hmmm.. You are right.This does not prevent concurrent updates on other
CPUs
> > from crossing a 32bit boundary. Am not sure how to do this in a safe way.
I
> > can only think of using atomic64_t now..
> >
> > > > + for_each_possible_cpu(cpu)
> > > > + ret += stat->cpustat[cpu].count[idx];
> > > > + local_irq_restore(flags);
> > > > +
> > > > + return ret;
> > > > +}
> > > > +
>
> So many stats to steal code from,.. but you didn't :-(
>
> Look at mm/vmstat.c, that is a rather complete example.
>
> The trick to solving the above is to use per cpu deltas instead, the
> deltas can be machine word size and are thus always read in an atomic
> manner (provided they are also naturally aligned).
>
>
Hi Peter,

This wont work for time based statistics. At nsec granularity, a word can hold
a time value of up to ~4s.

I propose to solve this problem by using a lock to protect the statistics, but

only on 32bit architectures.

I'm not sure how good a solution this is, but that's the best I can think of
ATM.
--
regards,
Balaji Rao
Dept. of Mechanical Engineering,
National Institute of Technology Karnataka, India

_____
Containers mailing list
Containers@lists.linux-foundation.org
https://lists.linux-foundation.org/mailman/listinfo/containers