
Subject: [RFC 1/7] split percpu_counter_sum
Posted by [Glauber Costa](#) on Fri, 30 Mar 2012 08:04:39 GMT
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Split the locked part so we can do other operations with the counter
in other call sites.

Signed-off-by: Glauber Costa <glommer@parallels.com>

```
include/linux/percpu_counter.h | 1 +
lib/percpu_counter.c           | 12 ++++++++
2 files changed, 11 insertions(+), 2 deletions(-)
```

```
diff --git a/include/linux/percpu_counter.h b/include/linux/percpu_counter.h
index b9df9ed..8310548 100644
```

```
--- a/include/linux/percpu_counter.h
+++ b/include/linux/percpu_counter.h
@@ -40,6 +40,7 @@ void percpu_counter_destroy(struct percpu_counter *fbc);
void percpu_counter_set(struct percpu_counter *fbc, s64 amount);
void __percpu_counter_add(struct percpu_counter *fbc, s64 amount, s32 batch);
s64 __percpu_counter_sum(struct percpu_counter *fbc);
+s64 __percpu_counter_sum_locked(struct percpu_counter *fbc);
int percpu_counter_compare(struct percpu_counter *fbc, s64 rhs);
```

```
static inline void percpu_counter_add(struct percpu_counter *fbc, s64 amount)
diff --git a/lib/percpu_counter.c b/lib/percpu_counter.c
```

```
index f8a3f1a..0b6a672 100644
--- a/lib/percpu_counter.c
+++ b/lib/percpu_counter.c
@@ -93,17 +93,25 @@ EXPORT_SYMBOL(__percpu_counter_add);
 * Add up all the per-cpu counts, return the result. This is a more accurate
 * but much slower version of percpu_counter_read_positive()
 */
-s64 __percpu_counter_sum(struct percpu_counter *fbc)
+s64 __percpu_counter_sum_locked(struct percpu_counter *fbc)
{
    s64 ret;
    int cpu;

    raw_spin_lock(&fbc->lock);
    ret = fbc->count;
    for_each_online_cpu(cpu) {
        s32 *pcount = per_cpu_ptr(fbc->counters, cpu);
        ret += *pcount;
    }
    + return ret;
+}
+EXPORT_SYMBOL(__percpu_counter_sum_locked);
```

```
+
+s64 __percpu_counter_sum(struct percpu_counter *fbc)
+{
+ s64 ret;
+ raw_spin_lock(&fbc->lock);
+ ret = __percpu_counter_sum_locked(fbc);
+ raw_spin_unlock(&fbc->lock);
+ return ret;
+}
```

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1.7.4.1
