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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>

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```
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;  
}  
--
```

#### 1.7.4.1

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