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If we need, for instance, to take some action when the counters drop 
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semantics as the atomic variables in the kernel.

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users appearing from now on will be checking this value.

Signed-off-by: Glauber Costa <glommer@parallels.com>
Reviewed-by: Michal Hocko <mhocko@suse.cz>
Acked-by: Kamezawa Hiroyuki <kamezawa.hiroyu@jp.fujitsu.com>
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CC: Suleiman Souhlal <suleiman@google.com>
CC: Tejun Heo <tj@kernel.org>

---
Documentation/cgroups/resource_counter.txt | 7 ++++---
iclude/linux/res_counter.h | 12 +++++++------
kernel/res_counter.c | 20 +++++++++++++++++-----
3 files changed, 24 insertions(+), 15 deletions(-)

diff --git a/Documentation/cgroups/resource_counter.txt
b/Documentation/cgroups/resource_counter.txt
index 0c4a344..c4d99ed 100644
--- a/Documentation/cgroups/resource_counter.txt
+++ b/Documentation/cgroups/resource_counter.txt
@@ -83,16 +83,17 @@ to work with it.
        res_counter->lock internally (it must be called with res_counter->lock
        held). The force parameter indicates whether we can bypass the limit.

- e. void res_counter_uncharge[_locked]
+ e. u64 res_counter_uncharge[_locked]
 (struct res_counter *rc, unsigned long val)

 When a resource is released (freed) it should be de-accounted 
from the resource counter it was accounted to. This is called 
"uncharging".
+"uncharging". The return value of this function indicate the amount 
+of charges still present in the counter.
The _locked routines imply that the res_counter->lock is taken.

- f. void res_counter_uncharge_until
+ f. u64 res_counter_uncharge_until
  (struct res_counter *rc, struct res_counter *top,
   unsigned long val)

diff --git a/include/linux/res_counter.h b/include/linux/res_counter.h
index 7d7fbe2..4b173b6 100644
--- a/include/linux/res_counter.h
+++ b/include/linux/res_counter.h
@@ -130,14 +130,16 @@ int res_counter_charge_nofail(struct res_counter *counter,
 *
 * these calls check for usage underflow and show a warning on the console
 * _locked call expects the counter->lock to be taken
+ *
+ * returns the total charges still present in @counter.
 * /
-void res_counter_uncharge_locked(struct res_counter *counter, unsigned long val);
-void res_counter_uncharge(struct res_counter *counter, unsigned long val);
+u64 res_counter_uncharge_locked(struct res_counter *counter, unsigned long val);
+u64 res_counter_uncharge(struct res_counter *counter, unsigned long val);

-void res_counter_uncharge_until(struct res_counter *counter,
-struct res_counter *top,
-unsigned long val);
+u64 res_counter_uncharge_until(struct res_counter *counter,
+    struct res_counter *top,
+    unsigned long val);
/**
 * res_counter_margin - calculate chargeable space of a counter
 * @cnt: the counter

diff --git a/kernel/res_counter.c b/kernel/res_counter.c
index ad581aa..7b3d6dc 100644
--- a/kernel/res_counter.c
+++ b/kernel/res_counter.c
@@ -86,33 +86,39 @@ int res_counter_charge_nofail(struct res_counter *counter, unsigned long val,
   return __res_counter_charge(counter, val, limit_fail_at, true);
 }
-void res_counter_uncharge_locked(struct res_counter *counter, unsigned long val)
+u64 res_counter_uncharge_locked(struct res_counter *counter, unsigned long val)
{
 if (WARN_ON(counter->usage < val))
  val = counter->usage;
counter->usage -= val;
+return counter->usage;
}

+void res_counter_uncharge_until(struct res_counter *counter,
+      struct res_counter *top,
+    unsigned long val)

+u64 res_counter_uncharge_until(struct res_counter *counter,
+      struct res_counter *top,
+    unsigned long val)
{
    unsigned long flags;
    struct res_counter *c;
    +u64 ret = 0;

    local_irq_save(flags);
    for (c = counter; c != top; c = c->parent) {
        +u64 r;
        spin_lock(&c->lock);
        +res_counter_uncharge_locked(c, val);
        +r = res_counter_uncharge_locked(c, val);
        +if (c == counter)
            +ret = r;
        spin_unlock(&c->lock);
    }
    local_irq_restore(flags);
    +return ret;
}

+void res_counter_uncharge(struct res_counter *counter, unsigned long val)

+u64 res_counter_uncharge(struct res_counter *counter, unsigned long val)
{
    -res_counter_uncharge_until(counter, NULL, val);
    +return res_counter_uncharge_until(counter, NULL, val);
}

static inline unsigned long long *

Subject: Re: [PATCH v5 08/14] res_counter: return amount of charges after res_counter_uncharge
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On Tue, 16 Oct 2012, Glauber Costa wrote:
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Acked-by: David Rientjes <rientjes@google.com>