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Subject: [-mm PATCH 5/9] Memory controller task migration (v4)

Posted by [Balbir Singh](#) on Fri, 27 Jul 2007 20:10:32 GMT

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Allow tasks to migrate from one container to the other. We migrate mm\_struct's mem\_container only when the thread group id migrates.

Signed-off-by: <[balbir@linux.vnet.ibm.com](mailto:balbir@linux.vnet.ibm.com)>

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mm/memcontrol.c | 35 ++++++  
1 file changed, 35 insertions(+)

```
diff -puN mm/memcontrol.c~mem-control-task-migration mm/memcontrol.c
--- linux-2.6.23-rc1-mm1/mm/memcontrol.c~mem-control-task-migration 2007-07-28
01:12:50.000000000 +0530
+++ linux-2.6.23-rc1-mm1-balbir/mm/memcontrol.c 2007-07-28 01:12:50.000000000 +0530
@@ -303,11 +303,46 @@ static int mem_container_populate(struct
    ARRAY_SIZE(mem_container_files));
}

+static void mem_container_move_task(struct container_subsys *ss,
+    struct container *cont,
+    struct container *old_cont,
+    struct task_struct *p)
+{
+    struct mm_struct *mm;
+    struct mem_container *mem, *old_mem;
+
+    mm = get_task_mm(p);
+    if (mm == NULL)
+        return;
+
+    mem = mem_container_from_cont(cont);
+    old_mem = mem_container_from_cont(old_cont);
+
+    if (mem == old_mem)
+        goto out;
+
+/*
+ * Only thread group leaders are allowed to migrate, the mm_struct is
+ * in effect owned by the leader
+ */
+if (p->tgid != p->pid)
+    goto out;
+
+css_get(&mem->css);
```

```
+ rcu_assign_pointer(mm->mem_container, mem);
+ css_put(&old_mem->css);
+
+out:
+ mmput(mm);
+ return;
+}
+
struct container_subsys mem_container_subsys = {
    .name = "memory",
    .subsys_id = mem_container_subsys_id,
    .create = mem_container_create,
    .destroy = mem_container_destroy,
    .populate = mem_container_populate,
+   .attach = mem_container_move_task,
    .early_init = 1,
};
```

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Warm Regards,  
Balbir Singh  
Linux Technology Center  
IBM, ISTL

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

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