
Subject: [-mm PATCH 5/10] Memory controller task migration (v7)

Posted by [Balbir Singh](#) on Fri, 24 Aug 2007 15:20:43 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 Singh <balbir@linux.vnet.ibm.com>

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-rc2-mm2/mm/memcontrol.c~mem-control-task-migration 2007-08-24

20:46:07.000000000 +0530

+++ linux-2.6.23-rc2-mm2-balbir/mm/memcontrol.c 2007-08-24 20:46:07.000000000 +0530

@@ -326,11 +326,46 @@ 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:
+ mmpu(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,
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 IBM, ISTL

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