
Subject: [RFC][for -mm] memory controller enhancements for NUMA [4/10] calc mapped_ratio in cgroup

Posted by [KAMEZAWA Hiroyuki](#) on Wed, 14 Nov 2007 08:45:34 GMT

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Define function for calculating mapped_ratio in memory cgroup.

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include/linux/memcontrol.h | 11 +++++++
mm/memcontrol.c | 13 +++++++
2 files changed, 23 insertions(+), 1 deletion(-)

Index: linux-2.6.24-rc2-mm1/mm/memcontrol.c

```
=====
--- linux-2.6.24-rc2-mm1.orig/mm/memcontrol.c
+++ linux-2.6.24-rc2-mm1/mm/memcontrol.c
@@ -400,6 +400,19 @@ void mem_cgroup_move_lists(struct page_c
    spin_unlock(&mem->lru_lock);
}

+/*
+ * Calclate mapped_ratio under memory controller.
+ */
+int mem_cgroup_calc_mapped_ratio(struct mem_cgroup *mem)
+{
+    s64 total, rss;
+
+    /* usage is recoreded in bytes */
+    total = mem->res.usage >> PAGE_SHIFT;
+    rss = mem_cgroup_read_stat(&mem->stat, MEM_CGROUP_STAT_RSS);
+    return (rss * 100) / total;
+}
+
+unsigned long mem_cgroup_isolate_pages(unsigned long nr_to_scan,
+    struct list_head *dst,
+    unsigned long *scanned, int order,
```

Index: linux-2.6.24-rc2-mm1/include/linux/memcontrol.h

```
=====
--- linux-2.6.24-rc2-mm1.orig/include/linux/memcontrol.h
+++ linux-2.6.24-rc2-mm1/include/linux/memcontrol.h
@@ -61,6 +61,12 @@ extern int mem_cgroup_prepare_migration(
    extern void mem_cgroup_end_migration(struct page *page);
    extern void mem_cgroup_page_migration(struct page *page, struct page *newpage);

+/*
+ * For memory reclaim.
+ */
```

```

+extern int mem_cgroup_calc_mapped_ratio(struct mem_cgroup *mem);
+
+
+else /* CONFIG_CGROUP_MEM_CONT */
+static inline void mm_init_cgroup(struct mm_struct *mm,
+    struct task_struct *p)
+@@ -132,7 +138,10 @@ mem_cgroup_page_migration(struct page *p
+{
+}
+
+
+static inline int mem_cgroup_calc_mapped_ratio(struct mem_cgroup *mem)
+{
+return 0;
+}
+endif /* CONFIG_CGROUP_MEM_CONT */
+
+endif /* _LINUX_MEMCONTROL_H */

```

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