
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 */

```

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