
Subject: [RFC][for -mm] memory controller enhancements for NUMA [3/10] define macro for global lru scan

Posted by [KAMEZAWA Hiroyuki](#) on Wed, 14 Nov 2007 08:43:52 GMT

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add macro scan_global_lru().

This is used to detect which scan_control scans global lru or mem_cgroup lru.

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mm/vmscan.c | 17 ++++++++-----
1 file changed, 12 insertions(+), 5 deletions(-)

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

```
=====
--- linux-2.6.24-rc2-mm1.orig/mm/vmscan.c
+++ linux-2.6.24-rc2-mm1/mm/vmscan.c
@@ -127,6 +127,12 @@ long vm_total_pages; /* The total number
static LIST_HEAD(shrinker_list);
static DECLARE_RWSEM(shrinker_rwsem);

+#ifdef CONFIG_CGROUP_MEM_CONT
+#define scan_global_lru(sc) (!(sc)->mem_cgroup)
+#else
+#define scan_global_lru(sc) (1)
+#endif
+
+/*
+ * Add a shrinker callback to be called from the vm
+ */
@@ -1290,11 +1296,12 @@ static unsigned long do_try_to_free_page
 * Don't shrink slabs when reclaiming memory from
 * over limit cgroups
 */
- if (sc->mem_cgroup == NULL)
+ if (scan_global_lru(sc)) {
+ shrink_slab(sc->nr_scanned, gfp_mask, lru_pages);
- if (reclaim_state) {
- nr_reclaimed += reclaim_state->reclaimed_slab;
- reclaim_state->reclaimed_slab = 0;
+ if (reclaim_state) {
+ nr_reclaimed += reclaim_state->reclaimed_slab;
+ reclaim_state->reclaimed_slab = 0;
+ }
+ }
total_scanned += sc->nr_scanned;
```

```
if (nr_reclaimed >= sc->swap_cluster_max) {
@@ -1321,7 +1328,7 @@ static unsigned long do_try_to_free_page
    congestion_wait(WRITE, HZ/10);
}
/* top priority shrink_caches still had more to do? don't OOM, then */
- if (!sc->all_unreclaimable && sc->mem_cgroup == NULL)
+ if (!sc->all_unreclaimable && scan_global_lru(sc))
    ret = 1;
out:
/*
```

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