
Subject: [PATCH][NETNS] Use list_for_each_entry_continue_reverse in setup_net
Posted by [Pavel Emelianov](#) on Fri, 14 Sep 2007 07:39:32 GMT

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I proposed introducing a list_for_each_entry_continue_reverse macro to be used in setup_net() when unrolling the failed ->init callback.

Here is the macro and some more cleanup in the setup_net() itself to remove one variable from the stack :) Minor, but the code looks nicer.

Signed-off-by: Pavel Emelyanov <xemul@openvz.org>

I have problems with cloning repos from git.openvz.org, so this patch comes to the yesterdays net-2.6.24 David's tree.

```
diff --git a/include/linux/list.h b/include/linux/list.h
index f29fc9c..ad9dcb9 100644
--- a/include/linux/list.h
+++ b/include/linux/list.h
@@ -525,6 +525,20 @@ static inline void list_splice_init_rcu(
     pos = list_entry(pos->member.next, typeof(*pos), member))

/**
+ * list_for_each_entry_continue_reverse - iterate backwards from the given point
+ * @pos: the type * to use as a loop cursor.
+ * @head: the head for your list.
+ * @member: the name of the list_struct within the struct.
+ *
+ * Start to iterate over list of given type backwards, continuing after
+ * the current position.
+ */
+#define list_for_each_entry_continue_reverse(pos, head, member) \
+ for (pos = list_entry(pos->member.prev, typeof(*pos), member); \
+     prefetch(pos->member.prev), &pos->member != (head); \
+     pos = list_entry(pos->member.prev, typeof(*pos), member))
+
+/**
 * list_for_each_entry_from - iterate over list of given type from the current point
 * @pos: the type * to use as a loop cursor.
 * @head: the head for your list.
diff --git a/net/core/net_namespace.c b/net/core/net_namespace.c
index 1fc513c..a9dd261 100644
--- a/net/core/net_namespace.c
+++ b/net/core/net_namespace.c
```

```

@@ -102,7 +102,6 @@ static int setup_net(struct net *net)
{
/* Must be called with net_mutex held */
struct pernet_operations *ops;
- struct list_head *ptr;
int error;

memset(net, 0, sizeof(struct net));
@@ -110,8 +109,7 @@ static int setup_net(struct net *net)
atomic_set(&net->use_count, 0);

error = 0;
- list_for_each(ptr, &pernet_list) {
- ops = list_entry(ptr, struct pernet_operations, list);
+ list_for_each_entry(ops, &pernet_list, list) {
if (ops->init) {
error = ops->init(net);
if (error < 0)
@@ -120,12 +118,12 @@ static int setup_net(struct net *net)
}
out:
return error;
+
out_undo:
/* Walk through the list backwards calling the exit functions
* for the pernet modules whose init functions did not fail.
*/
- for (ptr = ptr->prev; ptr != &pernet_list; ptr = ptr->prev) {
- ops = list_entry(ptr, struct pernet_operations, list);
+ list_for_each_entry_continue_reverse(ops, &pernet_list, list) {
if (ops->exit)
ops->exit(net);
}

```
