
Subject: [IA64] unwind did not work for processes born with CLONE_STOPPED

Posted by [dev](#) on Mon, 19 Mar 2007 10:50:21 GMT

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[IA64] unwind did not work for processes born with CLONE_STOPPED

Minor problem for mainstream. Big problem for CPT, because all the stopped/traced processes are born in this state, hence they cannot be checkpointed again due to failing unwind.

The problem was identified as assumption in kernel unwind library that top level frame is different of syscall frame. It is the case unless process was born with CLONE_STOPPED.

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```
--- a/arch/ia64/kernel/unwind.c
+++ b/arch/ia64/kernel/unwind.c
@@ -60,6 +60,7 @@ #ifdef UNW_DEBUG
 # define UNW_DEBUG_ON(n) unw_debug_level >= n
 /* Do not code a printk level, not all debug lines end in newline */
 # define UNW_DPRINT(n, ...) if (UNW_DEBUG_ON(n)) printk(__VA_ARGS__)
+# undef inline
 # define inline
 #else /* !UNW_DEBUG */
 # define UNW_DEBUG_ON(n) 0
@@ -1943,9 +1944,9 @@ EXPORT_SYMBOL(unw_unwind);
 int
 unw_unwind_to_user (struct unw_frame_info *info)
 {
- unsigned long ip, sp, pr = 0;
+ unsigned long ip, sp, pr = info->pr;

- while (unw_unwind(info) >= 0) {
+ do {
   unw_get_sp(info, &sp);
   if (((long)((unsigned long)info->task + IA64_STK_OFFSET - sp)
       < IA64_PT_REGS_SIZE) {
@@ -1963,7 +1964,7 @@ unw_unwind_to_user (struct unw_frame_inf
   __FUNCTION__, ip);
   return -1;
 }
- }
+ } while (unw_unwind(info) >= 0);
   unw_get_ip(info, &ip);
   UNW_DPRINT(0, "unwind.%.s: failed to unwind to user-level (ip=0x%.lx)\n",
```

__FUNCTION__, ip);
