
Subject: [PATCH 1/2] Consolidate bust_spinlocks()
Posted by [adobriyan](#) on Thu, 18 Jan 2007 11:09:39 GMT
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From: Kirill Korotaev <dev@sw.ru>

Part of long forgotten patch

<http://groups.google.com/group/fa.linux.kernel/msg/e98e941ce1cf29f6?dmode=source>

Since then, m32r grabbed two copies.

Signed-off-by: Alexey Dobriyan <adobriyan@openvz.org>

```
arch/i386/mm/fault.c      | 26 -----
arch/ia64/kernel/traps.c  | 30 -----
arch/m32r/mm/fault-nommu.c | 26 -----
arch/m32r/mm/fault.c      | 26 -----
arch/s390/mm/fault.c      | 26 -----
arch/x86_64/mm/fault.c    | 21 -----
lib/Makefile              | 4 ++-
lib/bust_spinlocks.c      | 2 +-
8 files changed, 3 insertions(+), 158 deletions(-)
```

--- a/arch/i386/mm/fault.c

+++ b/arch/i386/mm/fault.c

```
@@ -60,32 +60,6 @@ static inline int notify_page_fault(enum
}
```

```
/*
```

```
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
```

```
-void bust_spinlocks(int yes)
```

```
-{
- int loglevel_save = console_loglevel;
```

```
-
```

```
- if (yes) {
-  oops_in_progress = 1;
-  return;
```

```
- }
```

```
-#ifdef CONFIG_VT
```

```
- unblank_screen();
```

```
-#endif
```

```
- oops_in_progress = 0;
```

```
- /*
```

```
- * OK, the message is on the console. Now we call printk()
- * without oops_in_progress set so that printk will give klogd
- * a poke. Hold onto your hats...
```

```

- */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
-/*
 * Return EIP plus the CS segment base. The segment limit is also
 * adjusted, clamped to the kernel/user address space (whichever is
 * appropriate), and returned in *eip_limit.
--- a/arch/ia64/kernel/traps.c
+++ b/arch/ia64/kernel/traps.c
@@ -24,8 +24,6 @@ #include <asm/processor.h>
#include <asm/uaccess.h>
#include <asm/kdebug.h>

-extern spinlock_t timerlist_lock;
-
fpswa_interface_t *fpswa_interface;
EXPORT_SYMBOL(fpswa_interface);

@@ -53,34 +51,6 @@ trap_init (void)
fpswa_interface = __va(ia64_boot_param->fpswa);
}

-/*
- * Unlock any spinlocks which will prevent us from getting the message out (timerlist_lock
- * is acquired through the console unblank code)
- */
-void
-bust_spinlocks (int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-  oops_in_progress = 1;
-  return;
- }
-
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk() without
-  * oops_in_progress set so that printk will give klogd a poke. Hold onto
-  * your hats...
-  */

```

```

- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
void
die (const char *str, struct pt_regs *regs, long err)
{
--- a/arch/m32r/mm/fault-nommu.c
+++ b/arch/m32r/mm/fault-nommu.c
@@ -46,32 +46,6 @@ #define tlb_entry_i tlb_entry_i_dat[smp_
#define tlb_entry_d tlb_entry_d_dat[smp_processor_id()]
#endif

-/*
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-  oops_in_progress = 1;
-  return;
- }
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
void do_BUG(const char *file, int line)
{
  bust_spinlocks(1);
--- a/arch/m32r/mm/fault.c
+++ b/arch/m32r/mm/fault.c
@@ -49,32 +49,6 @@ #endif

extern void init_tlb(void);

```

```

-/*
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-  oops_in_progress = 1;
-  return;
- }
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
-/*=====
- * do_page_fault()
- *=====
--- a/arch/s390/mm/fault.c
+++ b/arch/s390/mm/fault.c
@@ -83,32 +83,6 @@ static inline int notify_page_fault(enum
}
#endif

-extern spinlock_t timerlist_lock;
-
-/*
- * Unlock any spinlocks which will prevent us from getting the
- * message out (timerlist_lock is acquired through the
- * console unblank code)
- */
-void bust_spinlocks(int yes)
-{
- if (yes) {
-  oops_in_progress = 1;
- } else {

```

```

- int loglevel_save = console_loglevel;
- console_unblank();
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15;
- printk(" ");
- console_loglevel = loglevel_save;
- }
-}
-
/*
 * Check which address space is addressed by the access
 * register in S390_lowcore.exc_access_id.
--- a/arch/x86_64/mm/fault.c
+++ b/arch/x86_64/mm/fault.c
@@ -69,27 +69,6 @@ static inline int notify_page_fault(enum
return atomic_notifier_call_chain(&notify_page_fault_chain, val, &args);
}

-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
- if (yes) {
- oops_in_progress = 1;
- } else {
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
- }
-}
-
/* Sometimes the CPU reports invalid exceptions on prefetch.
Check that here and ignore.
Opcode checker based on code by Richard Brunner */
--- a/lib/Makefile

```

```

+++ b/lib/Makefile
@@ -3,7 +3,7 @@ # Makefile for some libs needed in the k
#

lib-y := ctype.o string.o vsprintf.o cmdline.o \
- bust_spinlocks.o rbtree.o radix-tree.o dump_stack.o \
+ rbtree.o radix-tree.o dump_stack.o \
  idr.o div64.o int_sqrt.o bitmap.o extable.o prio_tree.o \
  sha1.o irq_regs.o reciprocal_div.o

@@ -12,7 +12,7 @@ lib-$(CONFIG_SMP) += cpumask.o

lib-y += kobject.o kref.o kobject_uevent.o klist.o

-obj-y += sort.o parser.o halfmd4.o debug_locks.o random32.o
+obj-y += sort.o parser.o halfmd4.o debug_locks.o random32.o bust_spinlocks.o

ifeq ($(CONFIG_DEBUG_KOBJECT),y)
CFLAGS_kobject.o += -DDEBUG
--- a/lib/bust_spinlocks.c
+++ b/lib/bust_spinlocks.c
@@ -14,7 +14,7 @@ #include <linux/wait.h>
#include <linux/vt_kern.h>

-void bust_spinlocks(int yes)
+void __attribute__((weak)) bust_spinlocks(int yes)
{
  if (yes) {
    oops_in_progress = 1;

```

Subject: Re: [PATCH 1/2] Consolidate bust_spinlocks()
 Posted by [Martin Schwidefsky](#) on Thu, 18 Jan 2007 11:39:25 GMT
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On Thu, 2007-01-18 at 14:16 +0300, Alexey Dobriyan wrote:
 > From: Kirill Korotaev <dev@sw.ru>
 >
 > Part of long forgotten patch
 > <http://groups.google.com/group/fa.linux.kernel/msg/e98e941ce1cf29f6?dmode=source>
 > Since then, m32r grabbed two copies.
 >
 > Signed-off-by: Alexey Dobriyan <adobriyan@openvz.org>
 > ---
 >
 > arch/i386/mm/fault.c | 26 -----
 > arch/ia64/kernel/traps.c | 30 -----

```
> arch/m32r/mm/fault-nommu.c | 26 -----
> arch/m32r/mm/fault.c      | 26 -----
> arch/s390/mm/fault.c      | 26 -----
> arch/x86_64/mm/fault.c    | 21 -----
> lib/Makefile              | 4 +++-
> lib/bust_spinlocks.c      | 2 +-
> 8 files changed, 3 insertions(+), 158 deletions(-)
```

NACK for the s390 part. lib/bust_spinlocks.c does an unblank_screen if CONFIG_VT is defined. That is not good enough for s390 because we do not have CONFIG_VT nor unblank_screen but still require that console_unblank is called.

--

blue skies,
Martin.

Martin Schwidefsky
Linux for zSeries Development & Services
IBM Deutschland Entwicklung GmbH

"Reality continues to ruin my life." - Calvin.

Subject: Re: [PATCH 1/2] Consolidate bust_spinlocks()
Posted by [adobriyan](#) on Thu, 18 Jan 2007 16:23:04 GMT
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On Thu, Jan 18, 2007 at 12:39:25PM +0100, Martin Schwidefsky wrote:
> NACK for the s390 part. lib/bust_spinlocks.c does an unblank_screen if
> CONFIG_VT is defined. That is not good enough for s390 because we do not
> have CONFIG_VT nor unblank_screen but still require that console_unblank
> is called.

Martin, are you OK with comments tweaking in s390 code?

[PATCH 1/2] Consolidate bust_spinlocks()

From: Kirill Korotaev <dev@sw.ru>

Part of long forgotten patch
<http://groups.google.com/group/fa.linux.kernel/msg/e98e941ce1cf29f6?dmode=source>
Since then, m32r grabbed two copies.

Leave s390 copy because of important absence of CONFIG_VT, but remove references to non-existent timerlist_lock. ia64 also loses timerlist_lock.

Signed-off-by: Alexey Dobriyan <adobriyan@openvz.org>

```
arch/i386/mm/fault.c      | 26 -----
arch/ia64/kernel/traps.c  | 30 -----
arch/m32r/mm/fault-nommu.c | 26 -----
arch/m32r/mm/fault.c      | 26 -----
arch/s390/mm/fault.c      | 4 +---
arch/x86_64/mm/fault.c    | 21 -----
lib/Makefile              | 4 ++--
lib/bust_spinlocks.c      | 2 +-
8 files changed, 4 insertions(+), 135 deletions(-)
```

--- a/arch/i386/mm/fault.c

+++ b/arch/i386/mm/fault.c

```
@@ -60,32 +60,6 @@ static inline int notify_page_fault(enum
}
```

```
/*
```

```
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
```

```
-void bust_spinlocks(int yes)
```

```
-{
- int loglevel_save = console_loglevel;
```

```
-
- if (yes) {
-     oops_in_progress = 1;
-     return;
```

```
- }
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
```

```
- oops_in_progress = 0;
```

```
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
```

```
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk("");
- console_loglevel = loglevel_save;
```

```
-}
```

```
-
```

```
-/*
- * Return EIP plus the CS segment base. The segment limit is also
- * adjusted, clamped to the kernel/user address space (whichever is
- * appropriate), and returned in *eip_limit.
```

--- a/arch/ia64/kernel/traps.c

```

+++ b/arch/ia64/kernel/traps.c
@@ -24,8 +24,6 @@ #include <asm/processor.h>
#include <asm/uaccess.h>
#include <asm/kdebug.h>

-extern spinlock_t timerlist_lock;
-
fpswa_interface_t *fpswa_interface;
EXPORT_SYMBOL(fpswa_interface);

@@ -53,34 +51,6 @@ trap_init (void)
    fpswa_interface = __va(ia64_boot_param->fpswa);
}

-/*
- * Unlock any spinlocks which will prevent us from getting the message out (timerlist_lock
- * is acquired through the console unblank code)
- */
-void
-bust_spinlocks (int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-    oops_in_progress = 1;
-    return;
- }
-
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk() without
-  * oops_in_progress set so that printk will give klogd a poke. Hold onto
-  * your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
void
die (const char *str, struct pt_regs *regs, long err)
{
--- a/arch/m32r/mm/fault-nommu.c
+++ b/arch/m32r/mm/fault-nommu.c
@@ -46,32 +46,6 @@ #define tlb_entry_i tlb_entry_i_dat[smp_

```

```

#define tlb_entry_d tlb_entry_d_dat[smp_processor_id()]
#endif

-/*
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-  oops_in_progress = 1;
-  return;
- }
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
void do_BUG(const char *file, int line)
{
    bust_spinlocks(1);
--- a/arch/m32r/mm/fault.c
+++ b/arch/m32r/mm/fault.c
@@ -49,32 +49,6 @@ #endif

extern void init_tlb(void);

-/*
- * Unlock any spinlocks which will prevent us from getting the
- * message out
- */
-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
-
- if (yes) {
-  oops_in_progress = 1;

```

```

- return;
- }
-#ifdef CONFIG_VT
- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
-}
-
-/*=====
- * do_page_fault()
- *=====
--- a/arch/s390/mm/fault.c
+++ b/arch/s390/mm/fault.c
@@ -83,12 +83,10 @@ static inline int notify_page_fault(enum
}
#endif

-extern spinlock_t timerlist_lock;

/*
 * Unlock any spinlocks which will prevent us from getting the
- * message out (timerlist_lock is acquired through the
- * console unblank code)
+ * message out.
 */
void bust_spinlocks(int yes)
{
--- a/arch/x86_64/mm/fault.c
+++ b/arch/x86_64/mm/fault.c
@@ -69,27 +69,6 @@ static inline int notify_page_fault(enum
return atomic_notifier_call_chain(&notify_page_fault_chain, val, &args);
}

-void bust_spinlocks(int yes)
-{
- int loglevel_save = console_loglevel;
- if (yes) {
- oops_in_progress = 1;
- } else {
-#ifdef CONFIG_VT

```

```

- unblank_screen();
-#endif
- oops_in_progress = 0;
- /*
-  * OK, the message is on the console. Now we call printk()
-  * without oops_in_progress set so that printk will give klogd
-  * a poke. Hold onto your hats...
-  */
- console_loglevel = 15; /* NMI oopser may have shut the console up */
- printk(" ");
- console_loglevel = loglevel_save;
- }
- }
-
/* Sometimes the CPU reports invalid exceptions on prefetch.
   Check that here and ignore.
   Opcode checker based on code by Richard Brunner */
--- a/lib/Makefile
+++ b/lib/Makefile
@@ -3,7 +3,7 @@ # Makefile for some libs needed in the k
#

lib-y := ctype.o string.o vsprintf.o cmdline.o \
- bust_spinlocks.o rbtree.o radix-tree.o dump_stack.o \
+ rbtree.o radix-tree.o dump_stack.o \
  idr.o div64.o int_sqrt.o bitmap.o extable.o prio_tree.o \
  sha1.o irq_regs.o reciprocal_div.o

@@ -12,7 +12,7 @@ lib-$(CONFIG_SMP) += cpumask.o

lib-y += kobject.o kref.o kobject_uevent.o klist.o

-obj-y += sort.o parser.o halfmd4.o debug_locks.o random32.o
+obj-y += sort.o parser.o halfmd4.o debug_locks.o random32.o bust_spinlocks.o

ifeq ($(CONFIG_DEBUG_KOBJECT),y)
CFLAGS_kobject.o += -DDEBUG
--- a/lib/bust_spinlocks.c
+++ b/lib/bust_spinlocks.c
@@ -14,7 +14,7 @@ #include <linux/wait.h>
#include <linux/vt_kern.h>

-void bust_spinlocks(int yes)
+void __attribute__((weak)) bust_spinlocks(int yes)
{
  if (yes) {
    oops_in_progress = 1;

```

Subject: Re: [PATCH 1/2] Consolidate bust_spinlocks()
Posted by [Martin Schwidefsky](#) on Fri, 19 Jan 2007 09:27:31 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Thu, 2007-01-18 at 19:26 +0300, Alexey Dobriyan wrote:
> Martin, are you OK with comments tweaking in s390 code?
> -----
> [PATCH 1/2] Consolidate bust_spinlocks()

Yes, this should be fine now.

--
blue skies,
Martin.

Martin Schwidefsky
Linux for zSeries Development & Services
IBM Deutschland Entwicklung GmbH

"Reality continues to ruin my life." - Calvin.
