

[PATCH 06/12] i386: Minimum cpu detection cleanups.

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-04/msg12065.html>

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 - *Date:* Mon, 30 Apr 2007 10:09:11 -0600
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This patch modifies `verify_cpu` to check for a 486 even when `REQUIRED_MASK1 == 0`

This patch modifies `REQUIRED_MASK1` to require PAE when `CONFIG_X86_PAE` is set not when `HIGHMEM64G` is set, not that there is a functional difference but it seems an obvious fix.

Signed-off-by: Eric W. Biederman <ebiederm@xxxxxxxxxxxxx>

arch/i386/kernel/verify_cpu.S | 7 ++-----
include/asm-i386/required-features.h | 2 +-
2 files changed, 3 insertions(+), 6 deletions(-)

```
diff --git a/arch/i386/kernel/verify_cpu.S b/arch/i386/kernel/verify_cpu.S
index ba9e03e..e51a869 100644
--- a/arch/i386/kernel/verify_cpu.S
+++ b/arch/i386/kernel/verify_cpu.S
@@ -4,10 +4,6 @@
#include <asm/cpufeature.h>
```

```
verify_cpu:
-#if REQUIRED_MASK1 == 0
- xorl %eax,%eax
- ret
-#endif
pushfl # Save caller passed flags
pushl $0 # Kill any dangerous flags
popfl
@@ -21,7 +17,7 @@ verify_cpu:
testl $(1<<18),%eax
jz bad
#endif
-
+#if REQUIRED_MASK1 != 0
pushfl # standard way to check for cpuid
popl %eax
movl %eax,%ebx
```

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```
@@ -57,6 +53,7 @@ verify_cpu:
andl $REQUIRED_MASK1,%edx
xorl $REQUIRED_MASK1,%edx
jnz bad
+#endif /* REQUIRED_MASK1 */
```

```
popfl
xor %eax,%eax
diff --git a/include/asm-i386/required-features.h b/include/asm-i386/required-features.h
index 062407e..9db866c 100644
--- a/include/asm-i386/required-features.h
+++ b/include/asm-i386/required-features.h
```

```
@@ -11,7 +11,7 @@
```

The real information is in arch/i386/Kconfig.cpu, this just converts the CONFIGs into a bitmask */

```
—#ifdef CONFIG_HIGHMEM64G
+#ifdef CONFIG_X86_PAE
#define NEED_PAE (1<<X86_FEATURE_PAE)
#else
#define NEED_PAE 0
```

```
—
1.5.1.1.181.g2de0
```

—
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