

## [patch 28/28] Add cmpxchg\_local to xtensa

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/Kernel/2007-10/msg12379.html>

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  - *Date:* Wed, 31 Oct 2007 18:37:38 -0400
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Use the architecture specific \_\_cmpxchg\_u32 for 32 bits cmpxchg\_local. Else, use the new generic cmpxchg\_local (disables interrupt).

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include/asm-xtensa/system.h | 22 ++++++  
1 file changed, 22 insertions(+)

Index: linux-2.6-lttng/include/asm-xtensa/system.h

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--- linux-2.6-lttng.orig/include/asm-xtensa/system.h 2007-10-31 17:32:43.000000000 -0400  
+++ linux-2.6-lttng/include/asm-xtensa/system.h 2007-10-31 18:33:29.000000000 -0400  
@@ -156,8 +156,30 @@ \_\_cmpxchg(volatile void \*ptr, unsigned l  
(unsigned long)\_n\_, sizeof (\*(ptr))); \  
})

+#include <asm-generic/cmpxchg-local.h>

```
+static inline unsigned long __cmpxchg_local(volatile void *ptr,  
+ unsigned long old,  
+ unsigned long new, int size)  
+{  
+ switch (size) {  
+ case 4:  
+ return __cmpxchg_u32(ptr, old, new);  
+ default:  
+ return __cmpxchg_local_generic(ptr, old, new, size);  
+ }  
  
+ return old;  
+}  
+  
+/*  
+ * cmpxchg_local and cmpxchg64_local are atomic wrt current CPU. Always make  
+ * them available.  
+ */  
+#define cmpxchg_local(ptr, o, n) \  

```

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```
+ ((__typeof__(*(ptr)))__cmpxchg_local_generic((ptr), (unsigned long)(o),\  
+ (unsigned long)(n), sizeof(*(ptr))))  
+#define cmpxchg64_local(ptr, o, n) __cmpxchg64_local_generic((ptr), (o), (n))
```

```
/*  
* xchg_u32
```

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OpenPGP key fingerprint: 8CD5 52C3 8E3C 4140 715F BA06 3F25 A8FE 3BAE 9A68

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