
Subject: [PATCH] msr.c: use smp_call_function_single()
Posted by [adobriyan](#) on Wed, 17 Jan 2007 12:52:46 GMT
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It will execute rdmsr and wrmsr only on the cpu we need.

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

arch/i386/kernel/msr.c | 13 ++++-----
1 file changed, 4 insertions(+), 9 deletions(-)

--- a/arch/i386/kernel/msr.c

+++ b/arch/i386/kernel/msr.c

@@ -68,7 +68,6 @@ static inline int rdmsr_eio(u32 reg, u32
#ifdef CONFIG_SMP

```
struct msr_command {  
- int cpu;  
  int err;  
  u32 reg;  
  u32 data[2];  
@@ -78,16 +77,14 @@ static void msr_smp_wrmsr(void *cmd_block  
{  
    struct msr_command *cmd = (struct msr_command *)cmd_block;  
  
- if (cmd->cpu == smp_processor_id())  
-   cmd->err = wrmsr_eio(cmd->reg, cmd->data[0], cmd->data[1]);  
+ cmd->err = wrmsr_eio(cmd->reg, cmd->data[0], cmd->data[1]);  
}
```

```
static void msr_smp_rdmsr(void *cmd_block)  
{  
    struct msr_command *cmd = (struct msr_command *)cmd_block;  
  
- if (cmd->cpu == smp_processor_id())  
-   cmd->err = rdmsr_eio(cmd->reg, &cmd->data[0], &cmd->data[1]);  
+ cmd->err = rdmsr_eio(cmd->reg, &cmd->data[0], &cmd->data[1]);  
}
```

```
static inline int do_wrmsr(int cpu, u32 reg, u32 eax, u32 edx)  
@@ -99,12 +96,11 @@ static inline int do_wrmsr(int cpu, u32  
    if (cpu == smp_processor_id()) {  
        ret = wrmsr_eio(reg, eax, edx);  
    } else {  
-   cmd.cpu = cpu;  
-   cmd.reg = reg;  
-   cmd.data[0] = eax;
```

```
cmd.data[1] = edx;

- smp_call_function(msr_smp_wrmsr, &cmd, 1, 1);
+ smp_call_function_single(cpu, msr_smp_wrmsr, &cmd, 1, 1);
  ret = cmd.err;
}
preempt_enable();
@@ -120,10 +116,9 @@ static inline int do_rdmsr(int cpu, u32
if (cpu == smp_processor_id()) {
  ret = rdmsr_eio(reg, eax, edx);
} else {
- cmd.cpu = cpu;
  cmd.reg = reg;

- smp_call_function(msr_smp_rdmsr, &cmd, 1, 1);
+ smp_call_function_single(cpu, msr_smp_rdmsr, &cmd, 1, 1);

  *eax = cmd.data[0];
  *edx = cmd.data[1];
```

Subject: Re: [PATCH] msr.c: use smp_call_function_single()

Posted by [hpa](#) on Thu, 18 Jan 2007 22:53:57 GMT

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Alexey Dobriyan wrote:

> It will execute rdmsr and wrmsr only on the cpu we need.

>

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

This is good, but a bit incomplete; see other message recently posted to LKML. Since this affects paravirtualization I want to minimize the number of changes.

-hpa
