
Subject: 2.6.22-ovz002 on powerpc

Posted by [Christian Kaiser2](#) on Tue, 04 Sep 2007 10:15:15 GMT

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Hi all,

I tried my best today at your new development kernel based on a 2.6.22 Linux Kernel. My first question is: why did you use the 2.6.22 Kernel as base for your work and not the latest 2.6.22.6 that already includes some bugfixes. The first error I got when I tried to compile on a powerpc64 machine was:

```
In file included from include/asm/pgalloc.h:6,
                  from arch/powerpc/mm/mem.c:36:
include/asm/pgalloc-64.h: In function 'do_pte_alloc':
include/asm/pgalloc-64.h:87: error: 'PTE_CACHE_NUM' undeclared (first use
in this function)
include/asm/pgalloc-64.h:87: error: (Each undeclared identifier is reported
only once
include/asm/pgalloc-64.h:87: error: for each function it appears in.)
make[1]: *** [arch/powerpc/mm/mem.o] Error 1
make: *** [arch/powerpc/mm] Error 2
make: *** Waiting for unfinished jobs....
```

So I took the updated version of "include/asm/pgalloc-64.h" from 2.6.22.6 and that error was solved.

Beside this I realized that you forgot to update the powerpc system tabe. So I added the fairsched specific system calls in "include/asm-powerpc/systbl.h" and "include/asm-powerpc/unistd.h".

But I am still getting another error:

```
Building modules, stage 2.
MODPOST 143 modules
WRAP arch/powerpc/boot/zImage.pseries
ERROR: "nf_ct_icmp_timeout" [net/netfilter/nf_conntrack.ko] undefined!
make[1]: *** [__modpost] Error 1
make: *** [modules] Error 2
make: *** Waiting for unfinished jobs....
```

These conntrack things are confusing me... so I added the "nf_ct_icmp_timeout" variable at the beginning of "net/netfilter/nf_conntrack_standalone.c". Without CONFIG_NF_CONNTRACK=m it fails building somewhere else.

Booting the Kernel on a QS20 blade ends up in this loop of exceptions:

Memory: 1020352k/1048576k available (4736k kernel code, 28224k reserved, 768k data, 590k bss, 384k in)

Mount-cache hash table entries: 4096
Page beancounter hash is 8192 entries.
Processor 1 found.
Processor 2 found.
Processor 3 found.
Brought up 4 CPUs

-----[cut here]-----

Badness at kernel/sched.c:7495

Call Trace:

```
[c00000003ef03550] [c00000000000f3d4] .show_stack+0x68/0x1b0 (unreliable)
[c00000003ef035f0] [c00000000001ad700] .report_bug+0x94/0xe8
[c00000003ef03680] [c0000000000246f4] .program_check_exception+0x178/0x61c
[c00000003ef03730] [c000000000004f0c] program_check_common+0x10c/0x180
```

--- Exception: 700 at .measure_one+0xc4/0x16c

LR = .measure_one+0xac/0x16c

```
[c00000003ef03ae0] [c00000000004bbac] .build_sched_domains+0x950/0xda0
[c00000003ef03d70] [c00000000004c030] .arch_init_sched_domains+0x34/0x70
[c00000003ef03e10] [c0000000000457038] .sched_init_smp+0x30/0xcc
[c00000003ef03ea0] [c0000000000440b30] .kernel_init+0x14c/0x3c4
[c00000003ef03f90] [c00000000002613c] .ppc_kernel_thread+0x4c/0x68
```

-----[cut here]-----

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LR = .measure_one+0xac/0x16c

[...]

Mit freundlichen Grüßen / Best Regards

Christian Kaiser

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