

Re: [fbsd] Network performance in a dual CPU system

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Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/net/2006-04/msg00208.html>

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 - *Date:* Thu, 27 Apr 2006 14:54:21 +0100 (BST)
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On Thu, 27 Apr 2006, Jeremie Le Hen wrote:

```
PID USERNAME THR PRI NICE SIZE RES STATE TIME WCPU
COMMAND
60 root 1 -44 -163 0K 8K WAIT 355.6H 72.17% swi1:
net
39 root 1 -68 -187 0K 8K WAIT 52.3H 5.22% irq28:
bge0
40 root 1 -68 -187 0K 8K WAIT 28.3H 2.25% irq29:
bge1
11 root 1 171 52 0K 8K RUN 166.6H 0.00% idle
63 root 1 -16 0 0K 8K - 121:55 0.00% yarrow
61 root 1 -32 -151 0K 8K WAIT 46:21 0.00% swi4:
clock sio
[...]
```

Does anyone know whether a dual CPU system can help us improve the situation? I was wondering if the software interrupt threads would be divided between the two processors.

I am a few weeks late, I just saw this very interesting thread. What solution did you finally employ to circumvent your high interrupt load ?

I missed the original thread, but in answer to the question: if you set `net.isr.direct=1`, then FreeBSD 6.x will run the `netisr` code in the `ithread` of the network device driver. This will allow the IP forwarding and related paths in two threads instead of one, potentially allowing greater parallelism. Of course, you also potentially contend more locks, you may increase the time it takes for the `ithread` to respond to new interrupts, etc, so it's not quite cut and dry, but with a workload like the one shown above, it might make quite a difference.

Robert N M Watson

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