

Linux Plumbers Conference

Dublin, Ireland September 12-14, 2022

The big softirq lock



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Per vector masking

- [PATCH 00/37] softirq: Per vector masking v3 (*feb 2019*)

- Disable specific vectors only

Ex:

```
local_bh_disable(NET_RX_SOFTIRQ | TIMER_SOFTIRQ)
local_bh_enable(NET_RX_SOFTIRQ | TIMER_SOFTIRQ)
```

- Also spinlocks/rwlocks, etc...

Ex:

```
spin_lock_bh(NET_RX_SOFTIRQ | TIMER_SOFTIRQ)
spin_unlock_bh(NET_RX_SOFTIRQ | TIMER_SOFTIRQ)
```



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Per vector unmasking

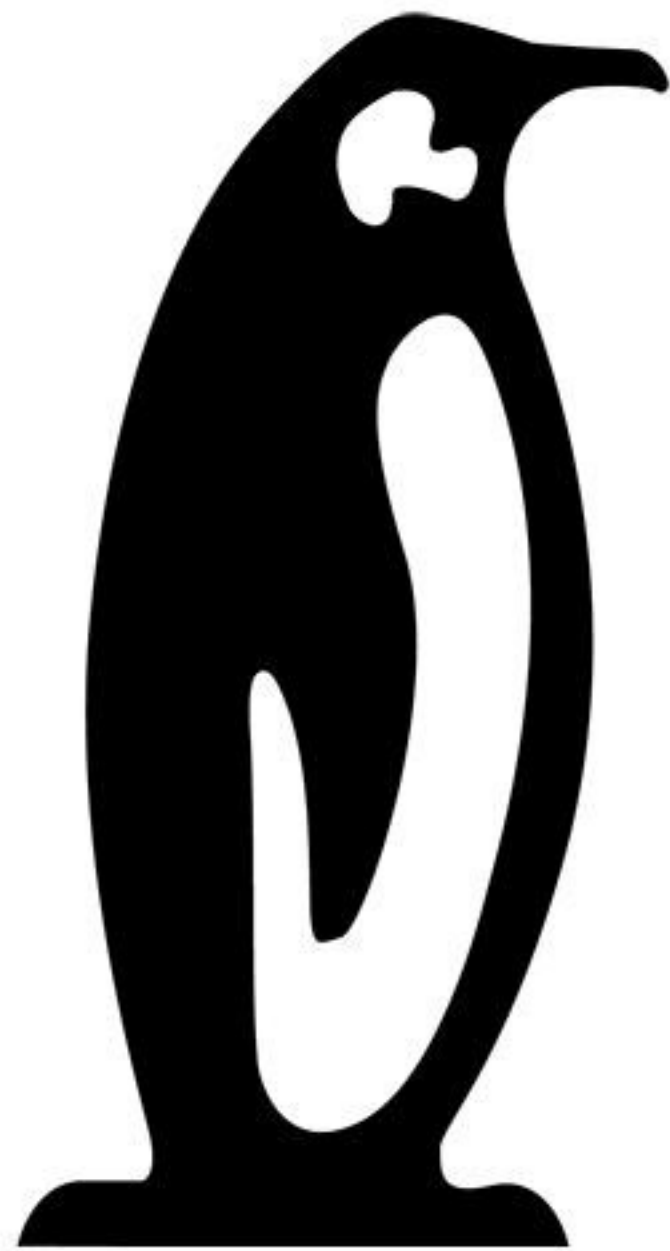
- Re-enable softirqs while servicing from callback and then push up to the callers

- `__do_softirq()` // disable all softirqs
 `run_timer_softirq()`
 `some_timer_callback()`
 `local_bh_enable(NET_RX_SOFTIRQ |)`
 // do work
 `local_bh_disable(NET_RX_SOFTIRQ |)`



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