

# Linux Plumbers Conference

Dublin, Ireland September 12-14, 2022

A stylized green pipe network graphic with various fittings, valves, and elbows, framing the central text. The pipes are bright green with dark green fittings and valves. The background is white.

# 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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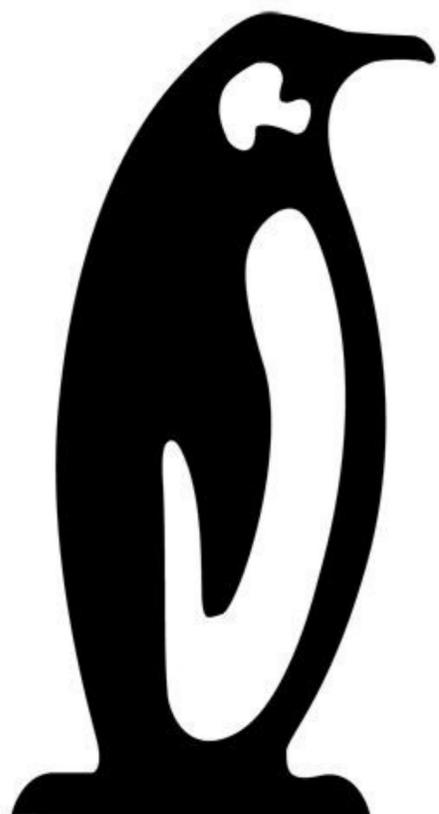
# Per vector unmasking

- 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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