LPC 2025 netdev track

東京 2025
LINUX
PLUMBERS CONFERENCE
TOKYO, JAPAN / DEC. 11-13, 2025

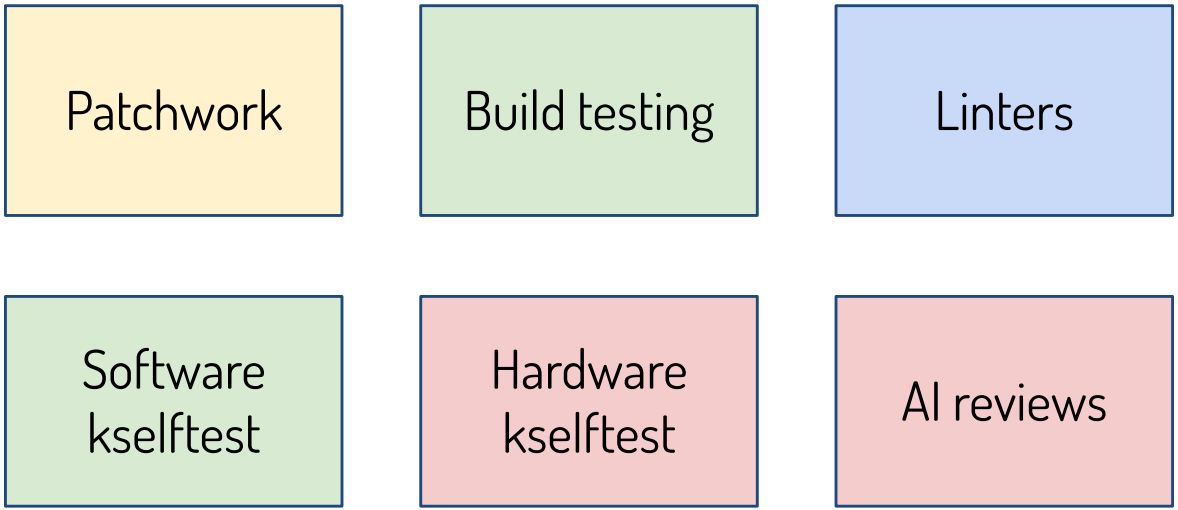
LPC 2025 - agenda

Infrastructure update (and netdev foundation)

Random thoughts and rants

Process.. discussion..

LPC 2025 - netdev infra



LPC 2025 - netdev foundation

Sponsors

LPC 2025 - netdev foundation

https://github.com/linux-netdev/foundation

- charter
- project proposals (Issues)
- operating procedures
- members

Please participate!

TSC

- Simon Horman (chair)
- Andrew Lunn
- David S. Miller
- Eric Dumazet
- Jakub Kicinski
- Johannes Berg
- Kuniyuki Iwashima
- Paolo Abeni
- Willem de Bruijn

LPC 2025 - netdev foundation

Projects

- miscellaneous (Plausible subscription)
- CI migration / HW lab (funded)
- embedded kselftests (pause, WoL) (WIP)
- hosted lore+lei (under discussion)
- patchwork improvements (under discussion)

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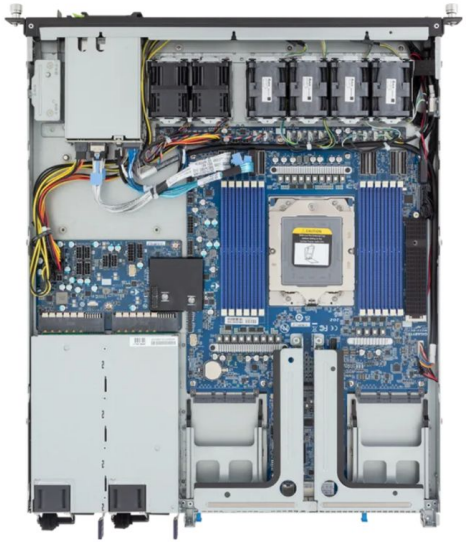
CI migration

5x

(5x $10,000)



E163-Z34-AAH1 Rev. 3.x

Edge Server - AMD EPYC™ 9005/9004 - 1U UP 2-Bay Gen5 NVMe/SATA/SAS-4 Titanium

Networking | Edge | Hybrid/Private Cloud Server

- Single AMD EPYC™ 9005/9004 Series Processors
- 12-Channel DDR5 RDIMM, 12 x DIMMs
- Dual ROM Architecture
- 1 x 1Gb/s LAN port via Intel® I210-AT
- 2 x 2.5" Gen5 NVMe/SATA/SAS-4 hot-swap bays
- 1 x M.2 slot with PCIe Gen3 x4 interface
- 2 x FHHL PCIe Gen5 x16 slots
- 2 x OCP NIC 3.0 PCIe Gen5 x16 slots
- 1+1 1300W 80 PLUS Titanium redundant power supplies

Ordering Numbers: 6NE163Z34DR000ACH1*

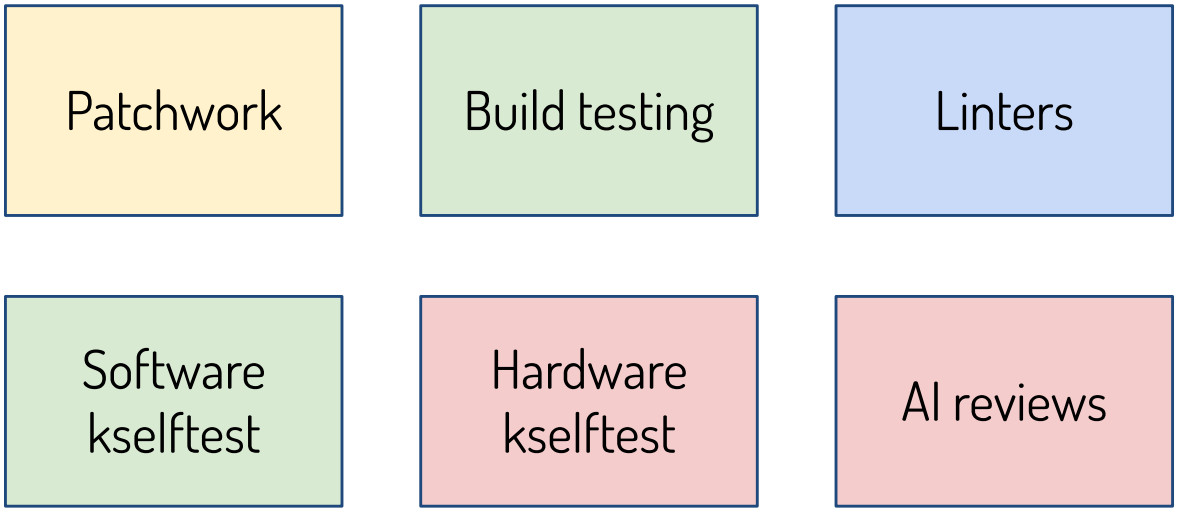
AMD EPYC | 80 PLUS TITANIUM

Add to Quote | Compare | Save

Hosted by:

HAPROXY

LPC 2025 - netdev infra



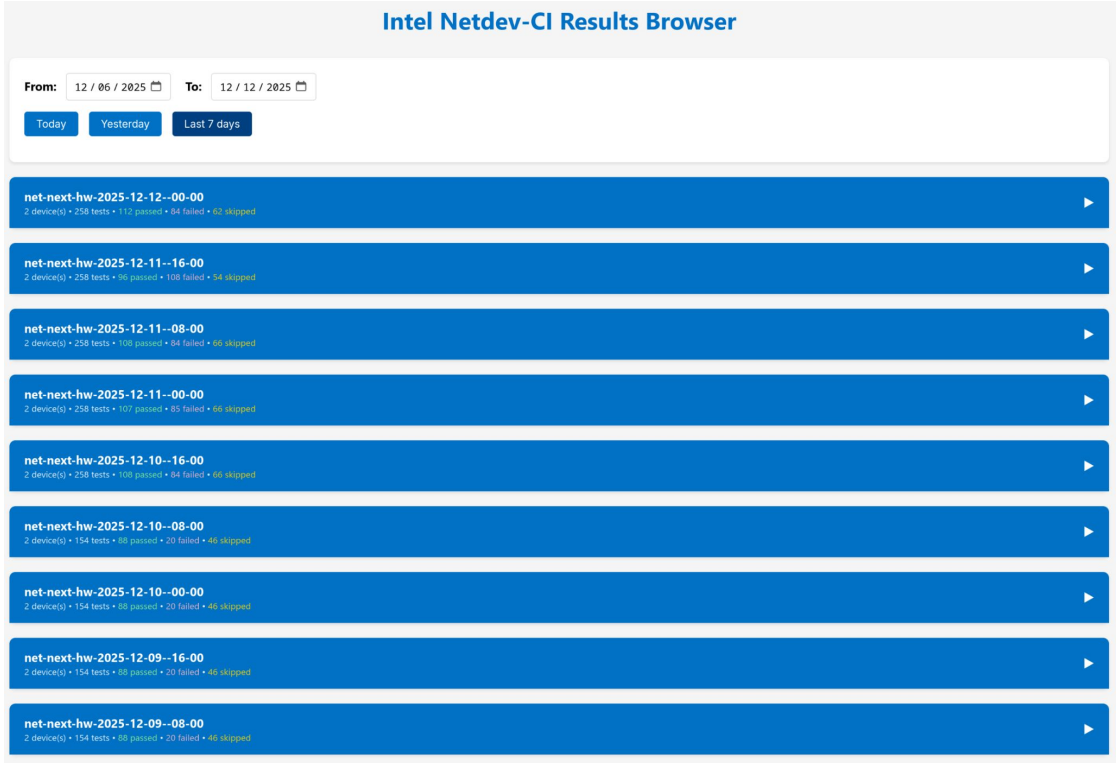
LPC 2025 - CI updates

HW selftests

- as announced in April '24 all drivers in "Supported" state must run upstream tests
- NIPA integration work this year
  - automatic stability assessment
- first vendor reporting results 🥳

LPC 2025 - HW selftests

https://netdev-ci-results.intel.com



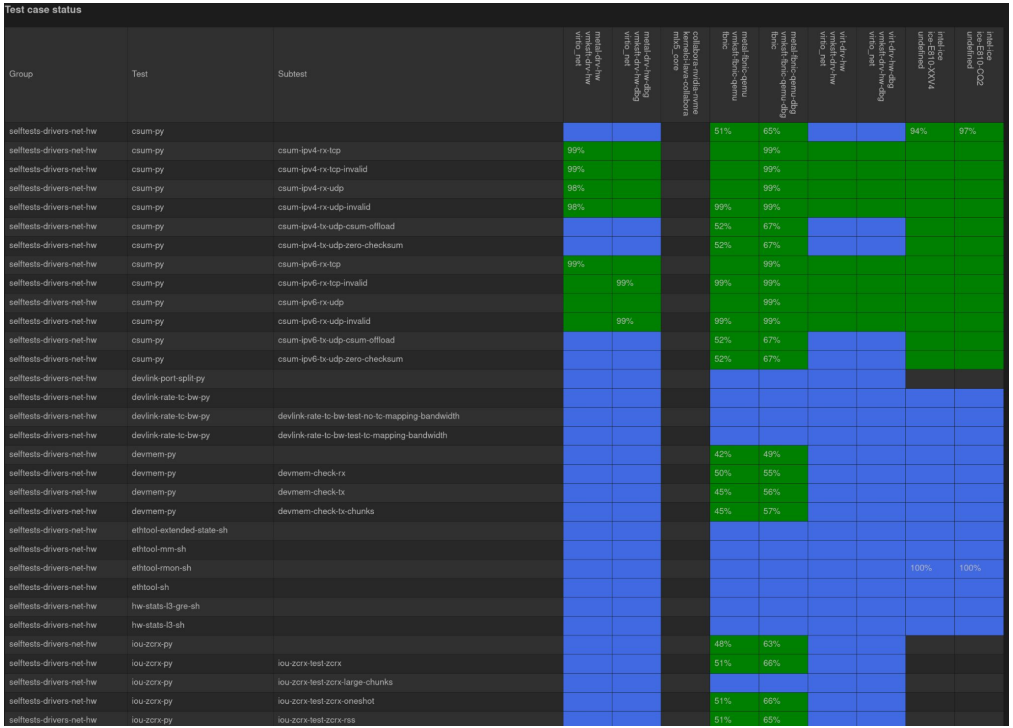
LPC 2025 - HW selftests

https://netdev.bots.linux.dev/status.html

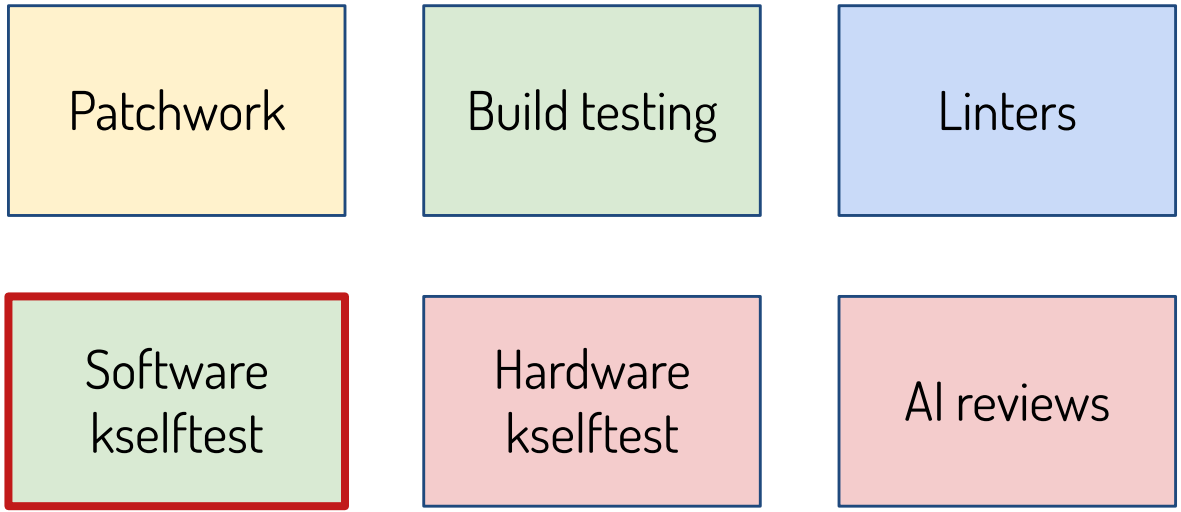
Branch	Remote	Time	Tests	Result
net-next-hw-2025-12-12--00-00		12/12/2025, 9:00:14 AM		
	virt-drv-hw-dbg	41m 30s	16 / 0 / 1	fail
	metal-fbnic-qemu-dbg	37m 42s	25 / 0 / 0	pass
	virt-drv-hw	38m 9s	10 / 0 / 1	fail
	metal-drv-hw-dbg	34m 29s	17 / 0 / 0	pass
	metal-drv-hw	13m 30s	17 / 0 / 0	pass
	metal-fbnic-qemu	12m 14s	25 / 0 / 0	pass
	intel-ice	8m 3s	8 / 0 / 0	pass
	intel-ice	8m 3s	8 / 0 / 0	pass
summary	*8 remotes*	*41m 30s*	*126 / 0 / 2*	pending

LPC 2025 - HW selftests

https://netdev.bots.linux.dev/devices.html

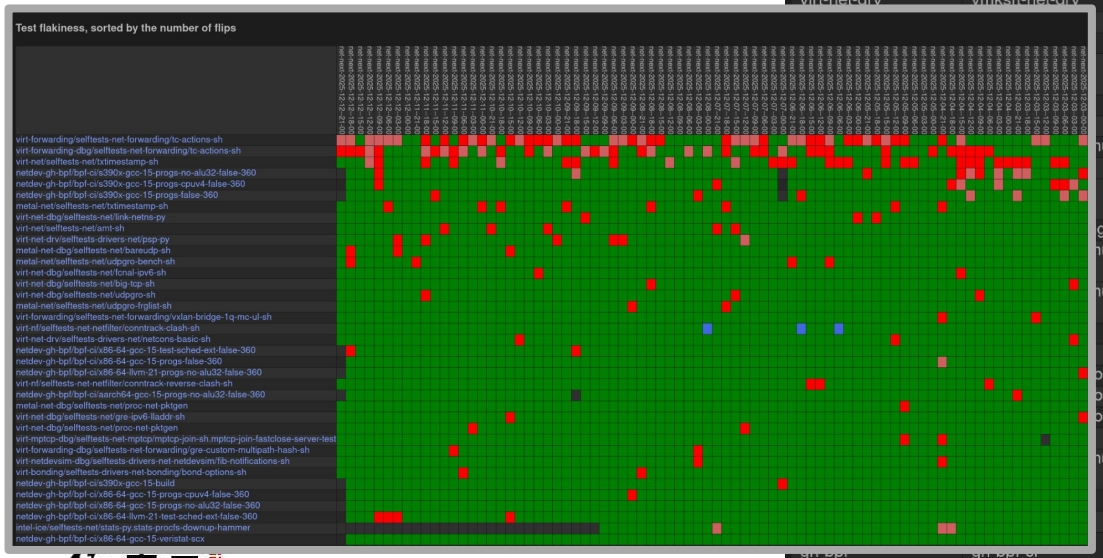


LPC 2025 - netdev infra



LPC 2025 - flake frequency summary

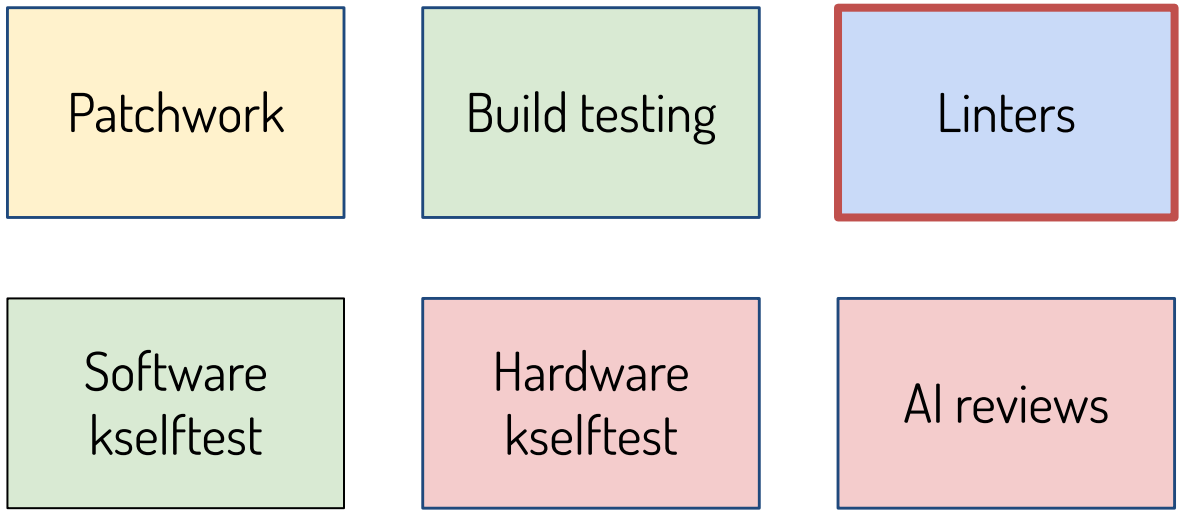
https://netdev.bots.linux.dev/status.html



Flakiest tests

Remote	Executor	Test	Flakes (by week: this, 1, 2, 3 ago)				Ignored
virt-net	vmksft-net	txtimestamp-sh	14	21	4	0	yes
metal-net	vmksft-net	txtimestamp-sh	7	1	2	0	
virt-net	vmksft-net	amt-sh	5	1	1	0	
virt-drv-hw-dbg	vmksft-drv-hw-dbg	ring-reconfig-py	4	2	0	0	
virt-net-drv	vmksft-net-drv	psp-py	4	1	0	0	
		s390x-gcc-15-progs-false-360	3	2	0	0	yes
		udpgro-bench-sh	3	0	1	0	
		s390x-gcc-15-progs-cpuv4-false-360	2	4	0	0	yes
		conntrack-reverse-clash-sh	2	3	3	0	yes
		netcons-basic-sh	2	1	1	0	
		rss-ctx-py	2	1	1	2	
		udpgro-frglist-sh	2	1	0	0	
		s390x-gcc-15-progs-no-alu32-false-360	1	9	0	0	yes
		vxlan-bridge-1q-mc-ul-sh	1	5	2	0	
		rss-ctx-py	1	2	1	4	
		tso-py	0	4	0	1	
		arp-ndisc-evict-nocarrier-sh	0	1	10	0	
		so-peek-off	0	1	7	0	
		ring-reconfig-py	0	1	2	1	
		napi-threaded-py	0	1	2	1	
		queues-py	0	1	2	1	
		s390x-gcc-15-progs-false-360	0	1	1	1	yes
		devmem-py	0	0	4	2	
		fib-rule-tests-sh	0	0	3	1	
		conntrack-reverse-clash-sh	0	0	1	1	yes
		s390x-gcc-15-progs-cpuv4-false-360	0	0	1	6	yes
gh-bpf	gh-bpf-ci	s390x-gcc-15-progs-no-alu32-false-360	0	0	1	4	yes
metal-bonding	vmksft-bonding	bond-macvlan-ipvlan-sh	0	0	0	7	yes
		reminder	*31*	*17*	*40*	*18*	
		total	*84*	*81*	*90*	*50*	

LPC 2025 - netdev infra



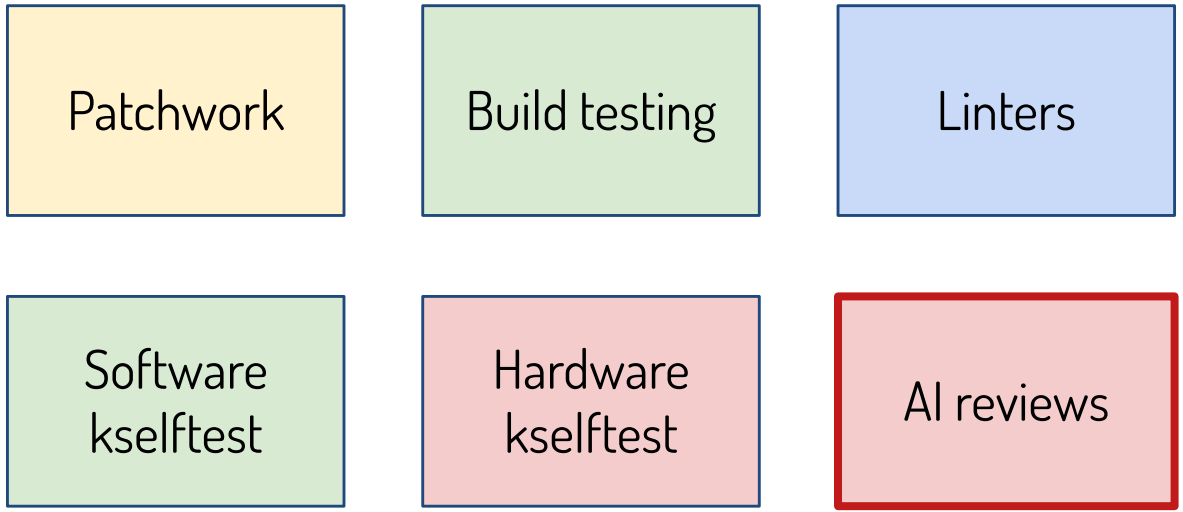
LPC 2025 - CI updates - linters

Linters

- there is a lot of them
- ingest_mdir now works more than less

```
series_format
 Full series WARNING Series does not have a cover letter

ynl
 Full series OKAY
  Generated files up to date; no warnings/errors; no diff in generated;

source_inline
 Patch 1     OKAY    Was 0 now: 0
 Patch 2     OKAY    Was 0 now: 0
 Patch 3     OKAY    Was 0 now: 0

verify_fixes
 Patch 1     OKAY    No Fixes tag
 Patch 2     OKAY    No Fixes tag
 Patch 3     OKAY    No Fixes tag

verify_signedoff
 Patch 1     OKAY    Signed-off-by tag matches author and committer
 Patch 2     OKAY    Signed-off-by tag matches author and committer
 Patch 3     OKAY    Signed-off-by tag matches author and committer

shellcheck
 Patch 1     OKAY    No shell scripts touched, skip
 Patch 2     OKAY    No shell scripts touched, skip
 Patch 3     OKAY    No shell scripts touched, skip

pylint
 Patch 1     OKAY    Errors before: 0 (+warn: 8) this patch: 0 (+warn: 8)
 Patch 2     OKAY    Errors before: 0 (+warn: 8) this patch: 0 (+warn: 8)
 Patch 3     OKAY    Errors before: 0 (+warn: 8) this patch: 0 (+warn: 8)

yamllint
 Patch 1     OKAY    No YAML files touched, skip
 Patch 2     OKAY    No YAML files touched, skip
 Patch 3     OKAY    No YAML files touched, skip

ruff
 Patch 1     OKAY    Errors before: 2 ; this patch: 2
 Patch 2     OKAY    Errors before: 2 ; this patch: 2
 Patch 3     OKAY    Errors before: 2 ; this patch: 2
```

LPC 2025 - netdev infra



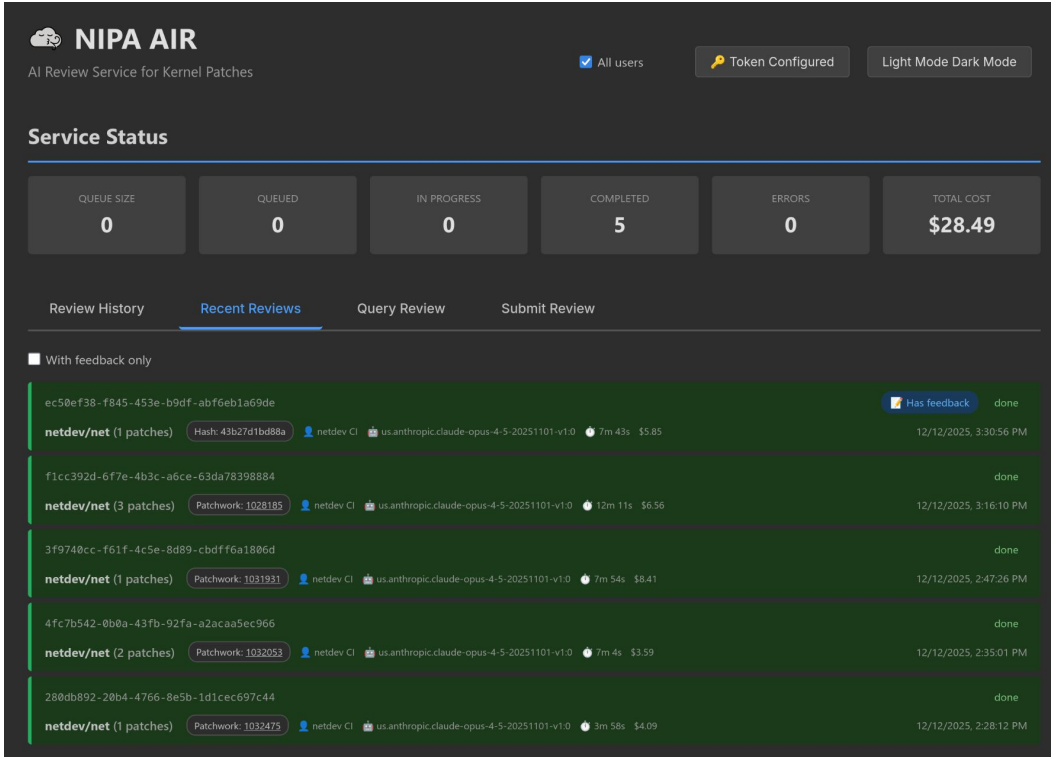
LPC 2025 - AI code reviews

Chris Mason's review prompts:
https://github.com/masoncl/review-prompts.git

netdev UI:

https://netdev-ai.bots.linux.dev

patchwork check: ai-review



LPC 2025 - random rants

Fact: maintainers spend more than 10% of their time reviewing patches from one-time contributors touching obscure sub-systems accounting for less than 1% of the total code base [1]. Why?

- the subsystem code is obscure (big surprise;)
- high potential risk of supply chain/social engineering or other impacting misbehaviours
- (some) subsystems (still) have users
- lower level of trust due to no prior history and no CI coverage.

[1] source: Dilbert's made-up numbers https://youtu.be/NEBvCLevBBQ?si=ooF10NSzpFPjkgU3

LPC 2025 - random rants [II]

One-time contributions to obscure subsystems are on the rise:

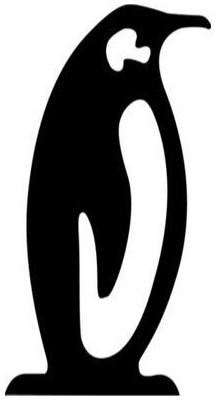
- feed by fuzzers and AI code assistants
- looking for visibility (career paths)
- the more obscure the subsystem the more opportunities for out of context changes

LPC 2025 - why is relevant to you

The netdev backlog is never too small. Every reviews count:

- saving that 1% maintainers time could make time for actually get _your_ patch reviewed
- being an active reviewer is a excellent first step towards larger contributions
- thoughts like “that patch is so obviously wrong it's not worth mentioning” can cause such patch being applied (maintainers are humans after all ;)

Just please avoid unconditional rubber stamp tags tag bring no value. A few words describing why/how you reviewed and/or tested the patch always help.



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