KVM (and KVM Forum) Status Report

KVM Forum 2023

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September 2022 – June 2023

- September 2022: late Linux 6.0-rc
- June 2023: late Linux 6.4-rc
- ~1300 commits; 109 to stable releases
  - Low from 2022, similar to 2021
  - Ratio of stable patches stays... stable
  - 23% (~300 commits) selftests!
- Loongarch probably included in 6.5
Commits in each group of 5 releases
Commits by architecture since 5.15-rc1
Commits by employer since 6.0-rc1
Arm highlights

- Parallel stage2 access faults (TDP MMU equivalent)
- Initial work towards nested virtualization
- Hypercall forwarding to userspace
- Virtual cache topology
- Dirty page ring buffer
- Improved page accounting
- New comaintainer Oliver Upton!
RISC-V highlights

- Support for various instructions
- Use generic guest entry infrastructure
- Allow unloading KVM module
- AIA (advanced interrupt architecture) virtualization
- Coming: steal time
s390 highlights

• Lazy destroy
• Support for kernel virtual != physical addresses
x86 highlights

• Improved page accounting
• Architectural fixes: event/exceptoin, APICv/AVIC
• Optional SMM support
• Nested Hyper-V paravirtualization
• PMU improvements
• TDP MMU feature/performance parity
• AMD virtual NMIs
• Many cleanups
KVM Forum news

- Linux Foundation focusing less on developer-oriented conferences
- Reduced attendance due to COVID and economy
- Now organized directly by program committee
  - Pros: cheaper!
  - Cons: some growing pains while we learn
Sorry about the waitlist
Thanks to...

- Local team
  - Jaroslav Suchanek
  - Miroslav Řezanina
  - Pavel Hrdina
  - Kristina Hanicová
  - Dorota Volavková

- Sponsors
  - Red Hat (organizer)
  - Arm (gold/food)
  - Nutanix (t-shirt)

- All speakers and attendees
What’s next?

- Let’s go back to 2022 size!
- Probably still in Europe due to logistics
  - Bruxelles (adjacent to FOSDEM)?
  - Milan? Cambridge? Anywhere else?
- Contact us to help!
  - Local organization, travel sponsorship, program committee,…
- See you at Plumbers too!
Let’s go :)