

KVM (and KVM Forum) Status Report

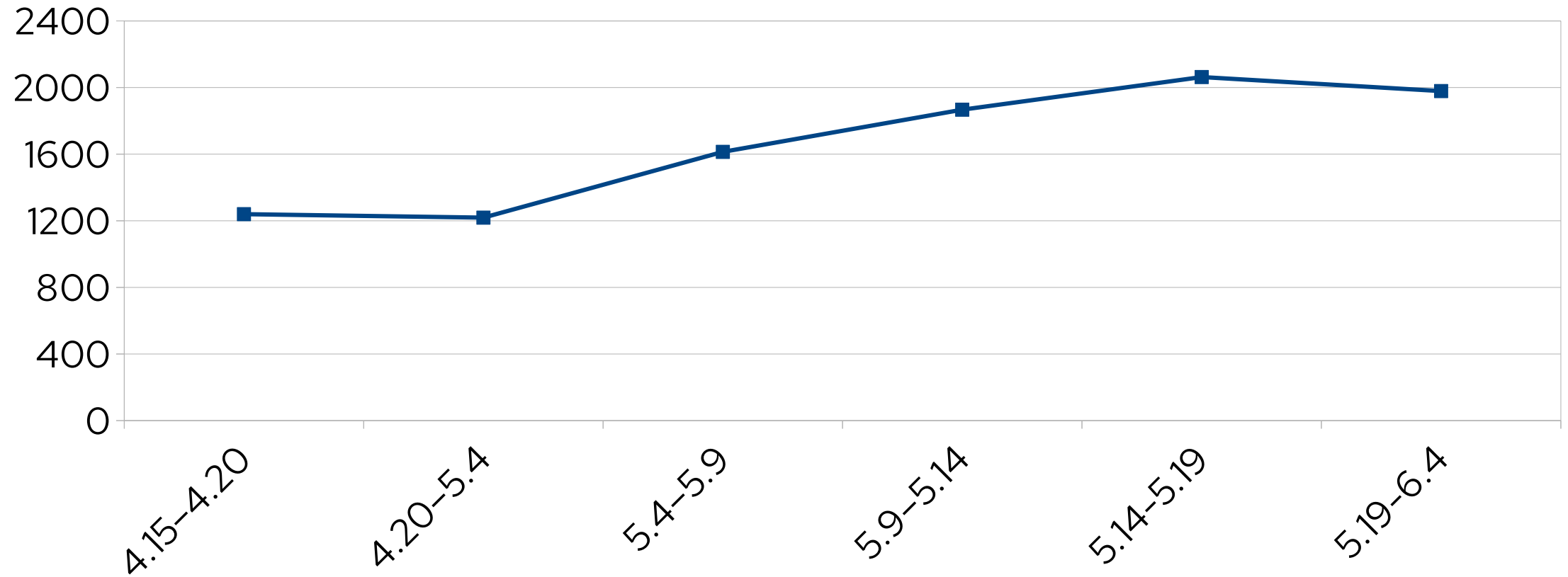
KVM Forum 2023

Paolo Bonzini, Red Hat
Distinguished Engineer

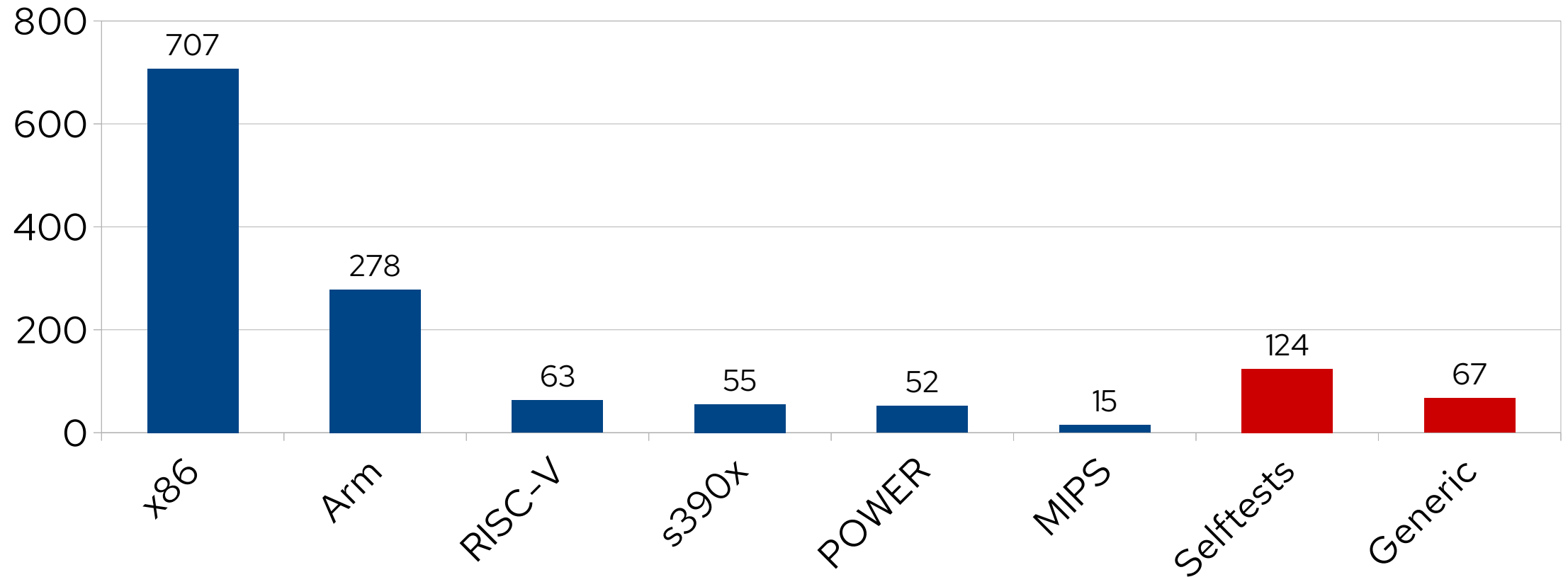
September 2022 – June 2023

- 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

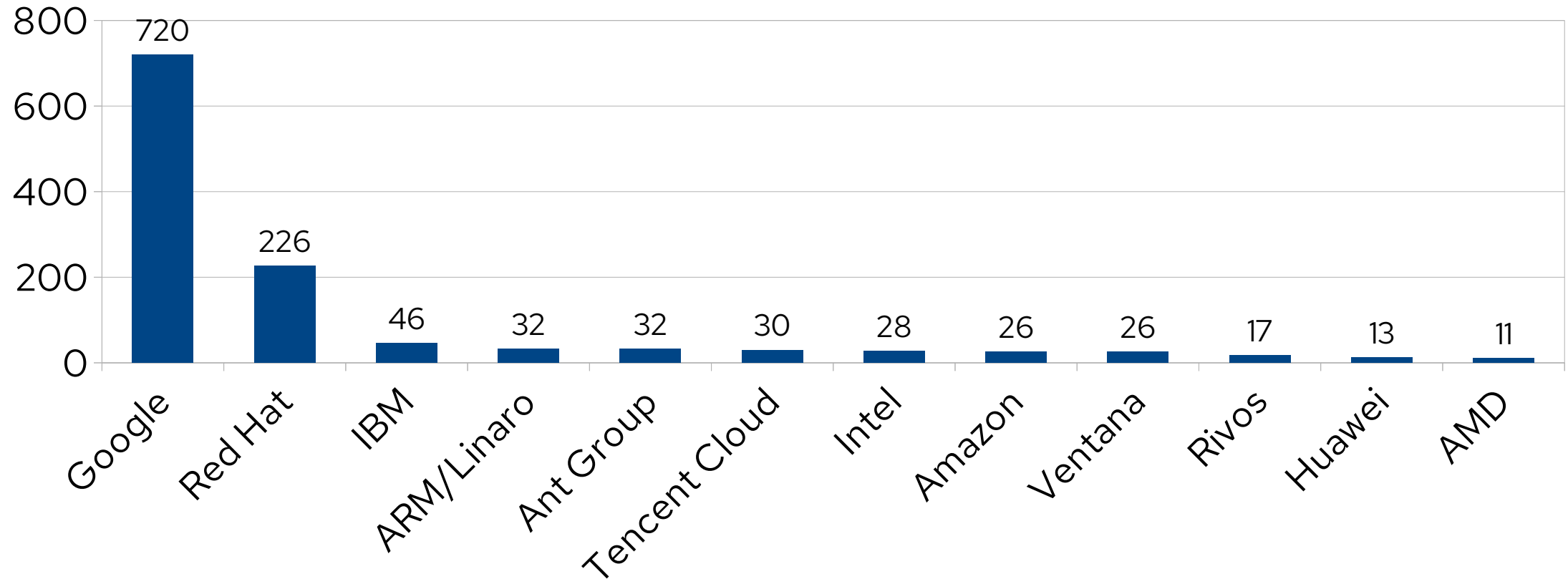
Commits in each group of 5 releases



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/excptoin, 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 :)



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