

Linux Plumbers Conference 2024



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Zoned Storage Devices MC

CFP closes on July 12th.

Zoned Storage Devices MC - SMR HDDs, ZNS SSDs, Zoned mobile flash (UFS)

We making good progress with zoned storage support in Linux, improving and adding support throughout the stack from low level drivers to file systems, user space tooling and cloud infrastructure.

Since the last LPC MC on the topic, lots of stuff has happened, so it will be great to gather the community again, look back at what we've done, go through the issues we face today and discuss what we need to address next.

This is a brief summary of what has happened the last couple of years:

- Zoned Mobile flash is now supported in UFS and F2FS
- The deadline scheduler is no longer required for zoned storage devices
- Ceph Crimson supports Zoned Namespace SDDS and Host managed SMR drives
- ZoneFS continues to be improved
- Data placement using hints is back in fashion.
- BTRFS zoned storage support is improving
- UBLK added support for zoned storage
- XFS is growing support for zoned rt sub volumes
- Loads of research on the subject has been done

We propose that we spend half of the time allotted to summing up where we are today with quick overviews and then spend the second half with BOFs, kicking off discussions. It would be fun to finish up with post-mc beverages somewhere for continued discussions in an informal setting.

BoF ideas:

- Data placement
- Garbage collection
- Write throttling
- Testing
- Benchmarking

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Track Classification: LPC Microconference Proposals