

Linux Plumbers Conference 2025



Contribution ID: 267

Type: **not specified**

Moving kernel swapping infrastructure to Rust

Despite all controversies, Rust in recent times has gained popularity as the second Linux kernel high-level language. The author once decided to go with the flow. What had started as an attempt to overcome zsmalloc inefficiency for large (16K+) pages became a broader initiative to rewrite parts of the swapping infrastructure in Rust, gaining better safety and reducing the code footprint in one of the most crucial Linux kernel subsystems. This talk will briefly cover this historical background and then the focus for the discussion will be which parts of the swapping subsystem and related drivers (e. g. zram) are better off reimplemented in Rust, and why.

Primary author: Mr WOOL, Vitaly

Presenter: Mr WOOL, Vitaly

Session Classification: Kernel Summit Track

Track Classification: Kernel Summit Track