

Linux Plumbers Conference 2024



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Atomics and memory model for Rust code in kernel

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Atomics and memory consistency model are important building blocks for kernel development. Based on a few previous discussions, the current conclusion is to roll our own atomics and memory model (using Linux kernel memory model) for Rust code in kernel. A patchset has been posted, while that patchset evolves in its own way, it'll be great to have an opportunity for status update, feedbacks and future plan discussions, things are planned to cover in this session are:

- Status update of Atomic APIs in Rust.
- Examples of what Rust code in LKMM would look like and the difference between Rust code in Rust memory model. And how we should maintain the difference between models in longer-term.
- Opportunities and challenges for our formal model with Rust in the picture (if we have the time and correct audience).

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