## **Linux Plumbers Conference 2025**



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## Loops handling by BPF verifier and what should we do about it?

The BPF verifier has troubles when verifying loops, and we are slowly moving to address these.

In the talk I want to cover:

- historical evolution of loops handling by verifier;
- problems with current state of things (too crude widening, no bounds for induction variables);
- describe DFA based liveness analysis that landed recently;
- describe further steps adding DFA-based value range analysis to the verifier.

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