

Backward Compactibility of livepatching API

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What is a Livepatch?

1. Technically

- **External Kernel Module**
- **Binary compatible**

Note: kABI compatibility alone is not enough.

2. Function

- **Redirect functions** (ftrace)
- **Callbacks** (before/after enabling or disabling transaction)
- **Shadow variables** (Extending structures and sharing data between livepatches)

3. Generation

Automated tooling

[kpatch](#)

[klp-build](#)

[klp-ccp](#)



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Improve and Break KLP API

atomic replace (5.1-rc1, 2019)

Removed registration step, stacking, signal sysfs

scoped atomic replace (7.x)

replace to provides/obsoletes

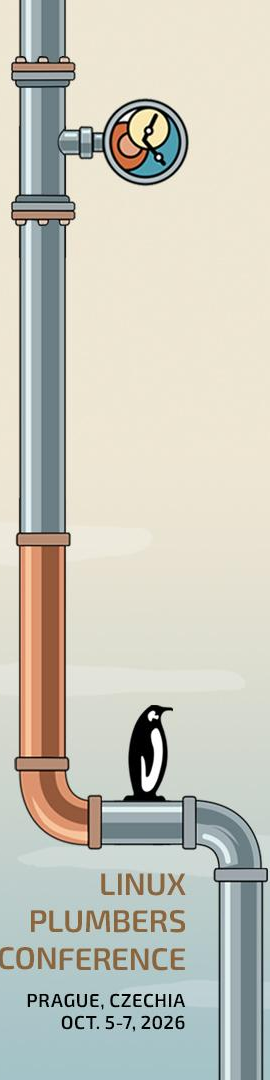
rework klp states (7.x)

- per-state callbacks
- per shadow var state

Potential problems:

- use cases
- tools
- supported code streams
- selftests
- ???





Thank You!

**Greatly appreciate the valuable discussion &
feedback!**

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