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Boot time testing with ftrace

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The Linux kernel currently lacks common upstream terminology for measuring boot time. Although tools like ftrace are available to trace boot-time events, there is no standardized approach (and upstream kselftest!) to measure and identify slowdowns during different stages of the boot process.

In this session, we will explore how to leverage existing tracing tools to monitor key events in the boot sequence and propose building a kselftest to automate this process. Building an in-tree test eliminates external dependencies and standardizes usage across different users and CI systems. The discussion will cover identifying critical functions to trace, configuring ftrace (e.g. through bootconfig), parsing trace data, and comparing it to user-provided reference values to detect significant boot time regressions.

In this session, we will propose an approach for building such test and invite community feedback and discussion.

Primary author: NAO, Laura (Collabora)

Presenter: NAO, Laura (Collabora)

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