Linux Plumbers Conference 2022



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Tracer namespaces

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There are various use-cases related to tracing which could benefit from introducing a notion of "tracer namespace" rather than playing tricks with ptrace. This idea was introduced in the LPC 2021 Tracing MC.

For instance, it would be interesting to offer the ability to trace system calls, uprobes, and user events using a kernel tracer controlled from within a container. Tracing a hierarchy consisting of a container and its children would also be useful. Runtime and post-processing trace filtering per-container also appears to be a relevant feature, in addition to allow dispatching events into a hierarchy of active tracing buffers (from the leaf going upwards to the root).

It would be preferable if this namespace hierarchy is separate from pid namespaces to allow use-cases similar to "strace" to trace a hierarchy of processes without requiring them to be in a separate pid namespace.

Introduce the idea of "tracer namespaces" and open the discussion on what would be needed to make it a reality.

I agree to abide by the anti-harassment policy

Yes

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