

Function tracing with arguments

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With the new `DYNAMIC_FTRACE_WITH_ARGS` feature that x86 (and hopefully soon other archs have), the function tracer callback gets all the registers needed to see the arguments by default (but not all registers). In theory, we can use something like BTF, which can describe the arguments of every function, and use it to trace them.

Currently, BPF can do this on a function by function basis, where it retrieves the arguments via generated code (with the help from BTF). But for function tracing, generated code is not needed. Just a quick lookup of how the arguments are defined, and how to use the `pt_regs` to retrieve them.

Secondly, once the arguments are retrieved, a generic way to write this to the ring buffer would also be needed.

All the functionality to do this is now available in the kernel (`DYNAMIC_FTRACE_WITH_ARGS` and BTF). How to implement it, is another question that needs to be solved, and this session will focus on that.

I agree to abide by the anti-harassment policy

I agree

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