

Multiple XDP programs on a single interface - status and next steps

Wednesday, August 26, 2020 7:00 AM (45 minutes)

At last year's LPC I presented a proposal for how to attach multiple XDP programs to a single interface and have them run in sequence. In this presentation I will follow up on that, and present the current status and next steps on this feature.

Briefly, the solution we ended up with was a bit different from what I envisioned at the last LPC: We now rely on the new 'freplace' functionality in BPF which allows a BPF program to replace a function in another BPF program. This makes it possible to implement the dispatcher logic in BPF, which is now part of the 'libxdp' library in the xdp-tools package.

In this presentation I will explain how this works under the covers, what it takes for an application to support this mode of operation, and discuss how we can ensure compatibility between applications, whether or not they use libxdp itself. I am also hoping to solicit feedback on the solution in general, including any possible deficiencies or possible improvements.

I agree to abide by the anti-harassment policy

I agree

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