



Contribution ID: 288

Type: **not specified**

Bringing packet queueing to XDP

Tuesday 13 September 2022 15:00 (30 minutes)

Packet forwarding is an important use case for XDP, however, XDP currently offers no mechanism to delay, queue or schedule packets. This limits the practical uses for XDP-based forwarding to those where the capacity of input and output links always match each other (i.e., no rate transitions or many-to-one forwarding). It also prevents an XDP-based router from doing any kind of traffic shaping or reordering to enforce policy.

Our proposal for adding a programmable queueing layer to XDP was posted as an RFC patch set in July^[0]. In this talk we will present the overall design for a wider audience, and summarise the current state of the work since the July series. We will also present open issues, in the hope of spurring discussion around the best way of adding this new capability in a way that is as widely applicable as possible.

[0] <https://lore.kernel.org/r/20220713111430.134810-1-toke@redhat.com>

I agree to abide by the anti-harassment policy

Yes

Primary author: HØILAND-JØRGENSEN, Toke (Red Hat)

Co-authors: ALFREDSSON, Frey (Karlstad University); Dr HURTIG, Per (Karlstad University); Prof. BRUNSTROM, Anna (Karlstad University)

Presenter: HØILAND-JØRGENSEN, Toke (Red Hat)

Session Classification: eBPF & Networking

Track Classification: eBPF & Networking Track