



Contribution ID: 256

Type: **not specified**

Machine reable description for netlink protocols (YAML?)

Tuesday, 13 September 2022 10:00 (30 minutes)

Netlink is a TLV based protocol we invented and use in networking for most of our uAPI needs. It supports seamless extensibility, feature discovery and has been hardened over the years to prevent users from falling into uAPI extensibility gotchas.

Nevertheless netlink remains very rarely unused outside of networking. It's considered arcane and too verbose (requires defining operations, policies, parsers). (The fact it depends on CONFIG_NET doesn't help either but that's probably just an excuse most of the time.)

In an attempt to alleviate those issues I have been working on creating a netlink protocol description in YAML. A machine readable netlink message description should make it easy for language bindings to be automatically generated, making netlink feel much more like gRPC, Thrift or just a function call in the user space. Similarly on the kernel side the YAML description can be used to generate the op tables, policies and parsers.

In this talk I'll cover the basics of netlink (which everyone claims to know but doesn't), compare it to Thrift/gRPC, and present the YAML work.

I agree to abide by the anti-harassment policy

Yes

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Session Classification: eBPF & Networking

Track Classification: eBPF & Networking Track