eBPF Debugging Infrastructure - Current Techniques and Additional Proposals

Thursday, 15 November 2018 11:20 (20 minutes)

eBPF (extended Berkeley Packet Filter), in particular with its driver-level hook XDP (eXpress Data Path), has increased in importance over the past few years. As a result, the ability to rapidly debug and diagnose problems is becoming more relevant. This talk will cover common issues faced and techniques to diagnose them, including the use of bpftool for map and program introspection, the use of disassembly to inspect generated assembly code and other methods such as using debug prints and how to apply these techniques when eBPF programs are offloaded to the hardware.

The talk will also explore where the current gaps in debugging infrastructure are and suggest some of the next steps to improve this, for example, integrations with tools such as strace, valgrind or even the LLDB debugger.

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**Session Classification:** BPF MC