

**Session Program**

**Sep 20 - 24, 2021**

**Linux Plumbers Conference 2021**

**BPF & Networking Summit**

# Mon, September 20

6:40 AM

## BPF & Networking Summit

**Session** | **Location:** LPC Virtual, Networking and BPF Summit/Virtual-Room

6:40 - 7:00 AM **BPF & Networking Opening Session**

**Speakers**

Daniel Borkmann, David Miller, Alexei Starovoitov, Andrii Nakryiko, Jakub Kicinski, Eric Dumazet

7:00 - 7:40 AM **BPF tracing: exploring additional debugging capabilities**

**Speaker**

Alan Maguire

7:50 - 8:30 AM **Use of eBPF in cpu scheduler**

**Speakers**

Hao Luo, Barret Rhoden

8:40 - 9:20 AM **Socket migration for SO\_REUSEPORT**

**Speaker**

Kuniyuki Iwashima

9:30 - 10:10 AM **bpf: mass attachment of tracing probes**

**Speaker**

Jiri Olsa

10:20 - 11:00 AM **BPF Map Tracing: Hot Updates of Stateful Programs**

**Speaker**

Joe Burton

11:00 AM

# Tue, September 21

7:00 AM

## BPF & Networking Summit

**Session** | **Location:** LPC Virtual, Networking and BPF Summit/Virtual-Room

7:00 - 7:40 AM **Bringing TSO/GRO and Jumbo frames to XDP**

**Speakers**

Eelco Chaudron, Toke Høiland-Jørgensen, Jesper Dangaard Brouer, Lorenzo Bianconi

7:50 - 8:30 AM **Watching the super powers**

**Speaker**

John Fastabend

8:40 - 9:20 AM **Improving the eBPF Developer Experience with Rust**

**Speakers**

Dave Tucker, Alessandro Decina

9:30 - 10:10 AM **Ahead-of-time compiled bpftrace programs**

**Speaker**

Daniel Xu

10:20 - 11:00 AM **DSA switches: domesticating a savage beast**

**Speaker**

Vladimir Oltean

11:00 AM

# Wed, September 22

7:00 AM

## BPF & Networking Summit

**Session** | **Location:** LPC Virtual, Networking and BPF Summit/Virtual-Room

7:00 - 7:40 AM **Towards a BPF Memory Model**

**Speaker**

Paul McKenney

7:50 - 8:30 AM **Self-healing Networking with Flow Label**

**Speaker**

Alexander Azimov

8:40 - 9:20 AM **Defragmenting the Loader Landscape**

**Speakers**

Timo Beckers, Lorenz Bauer

9:30 - 10:10 AM **BPF-datapath extensions for Kubernetes workloads**

**Speakers**

Daniel Borkmann, Martynas Pumputis

10:20 - 11:00 AM **bpfilter - BPF based firewall**

**Speaker**

Dmitrii Banshchikov

11:00 AM

# Thu, September 23

7:00 AM

## BPF & Networking Summit

**Session** | **Location:** LPC Virtual, Networking and BPF Summit/Virtual-Room

7:00 - 7:40 AM **Dynamic Encapsulation Using eBPF**

**Speakers**

Brian Vazquez, Coco Li, Stanislav Fomichev, Willem de Bruijn

7:50 - 8:30 AM **BPF user experience rough edges**

**Speakers**

Jakub Sitnicki, Arthur Fabre

8:40 - 9:20 AM **From XDP to Socket**

**Speakers**

Udip Pant, Martin Lau

9:30 - 10:10 AM

**A proof-carrying approach to building correct and flexible BPF verifiers**

**Speakers**

Luke Nelson, Xi Wang, Emina Torlak

10:20 - 11:00 AM **Pixie's eBPF Protocol Tracer**

**Speakers**

Omid Azizi, Yaxiong Zhao, Ryan Cheng, John P Stevenson, Zain Asgar

11:00 AM

# Fri, September 24

7:00 AM

## BPF & Networking Summit

**Session** | **Location:** LPC Virtual, Networking and BPF Summit/Virtual-Room

7:00 - 7:40 AM **Towards truly portable eBPF**

**Speakers**

Itay Shakury, Rafael David Tinoco

7:50 - 8:30 AM **Automatically optimizing BPF programs using program synthesis**

**Speakers**

Qiongwen Xu, Michael Wong, Tanvi Wagle, Srinivas Narayana, Anirudh Sivaraman

8:40 - 9:20 AM **BPF security auditing at Google**

**Speakers**

Brendan Jackman, KP Singh

9:30 - 10:10 AM **Translating IPv4 to IPv6 Without NAT**

**Speakers**

Kyle Anderson, Keerti Lakshminarayan, Alok Tiagi

10:20 - 11:00 AM **Untangling DSCP, TOS and ECN bits in the kernel**

**Speaker**

Guillaume Nault

11:00 AM