

Report from NetDev2.2

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What? When? Why?

- NetDev: The Technical Conference on Linux Networking
 - Community-driven conference geared towards Linux netheads.
 - Linux kernel networking and user space utilization of the interfaces to the Linux kernel networking subsystem are the focus.
- NetDev2.2 (5th edition): Nov 8-10, 2017, Seoul
- Next in Europe in spring

Topics and scope

- Performance/Offloading
 - netfilter: packet filter, NAT, firewalling...
 - eBPF (enhanced Berkeley Packet Filter): universal in-kernel virtual machine that has hooks all over the kernel, used by XDP (eXpress Data Path), traffic control (tc), tcpdump, tracing, sockets...
- Testing, e.g. netem (network emulation based on tc)
- IPSec
- Data center
- Wireless
- ...

Talks and topics at NetDev2.2 (1)

- **Congestion Control and Avoidance**

- [TCP-BPF: Programmatically tuning TCP behavior through BPF](#) by Lawrence Brakmo
- [Analysis and Evaluation of TCP Congestion Algorithms](#) by Lawrence Brakmo
- [Bufferbloat mitigation in the WiFi stack - status and next steps](#) by Toke Høiland-Jørgensen
- [State of ECN and improving congestion feedback with AccECN in Linux](#) by Mirja Kühlewind

- **Testing**

- [Arachne: Large Scale Data Centre SDN Testing](#) by Alexander Aring and Jamal Hadi Salim
- [TTCN-3 and Eclipse TITAN for testing protocol stacks](#) by Harald Welte

Talks and topics at NetDev2.2 (2)

- **XDP**

- Workshop: [XDP for the Rest of Us](#) by Andy Gospodarek and Jesper Dangaard Brouer
- [Accelerating XDP programs using HW-based hints](#) by PJ Waskiewicz, Anjali Singhai Jain, and Neerav Parikh
- [XDP + Netem = XNetem](#) by Stephen Hemminger

- **Security services and performing enhancing functions**

- [Highly-Scalable Transparent Performance Enhancing Proxy](#) by Jae Won Chung, Xiaoxiao Jiang, Jamal Hadi Salim, Roman Mashak, Sriram Sridhar, and Manish Kurup
- [WireGuard: Next-generation Secure Kernel Network Tunnel](#) by Jason Donenfeld
- [TLS Receive Side Crypto Offload](#) by Boris Pismenny, Ilya Lesokhin, and Liran Liss