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