Georg Carle: Research Interests

Topics

Network measurements

- High-performance packet processing
- Internet-scale infrastructure properties
- Reproducibility

Network architecture

- Low-latency communication and latency guarantees
- Network function chaining and virtualization
- Network resilience and adaptive configuration
- Network security and privacy

Methods

Automated performance measurements in testbed

Large-scale distributed measurements

Automated, formal methods for network security configuration

Topics for Discussions

Reproducibility

- What are suitable reference scenarios/benchmarks?
- When to use artificial traffic, and when to use realistic/real traffic?
- Are we aware network experiments that are hard to reproduce?

High performance packet processing

- Which challenges/limitations to look at in packet processing?
- Which role do coprocessors / FPGAs have in the network stack?

SDN and Virtualisation

- What are relevant research challenges for SDN, for NFV?
- Which SDN controllers, applications are relevant for deployment?
- Which open security challenges do we have in SDN networks?

What is the future relevance of the following Hot Internet Topics?

- ONOS, P4, Blockchain, Certificate Transparency, ...
- Information-Centric Networking; Delay-Tolerant Networking; Resource Public Key Infrastructure (RPKI); ...