# **Richard Scheffenegger, MSc**

Performance & Networking @ Data Storage NetApp

2005 NetApp, NL

2006 NetApp, DE

2009 NetApp, AT Senior Solution Architect

2010 IETF Contributor

Low latency

Resue RTX, RACK/TLP, L4S: AccECN former AQM WG chair

2020 FreeBSD Committer Transport (TCP "Base" Stack)

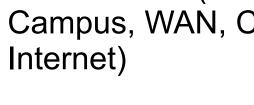


# **Topics of Interest**



## **Single stream performance**

Domain specific transport mechanisms (Datacenter, Campus, WAN, Cloud,





#### **Ultra Low Latency**

DCTCP, DCQCN, L4S, ECN

AQM - CoDel, DualQ, PIE

Avoid packet discards!



## **Scalability**

Computational overhead – automatic switching of TCP mechanisms via heuristics



# **Glancing interest in security**

TLS, QUIC, IPSEC

**PQC**