



Workshop on Standardization & Certification of  
QDK Systems and QKD Networks

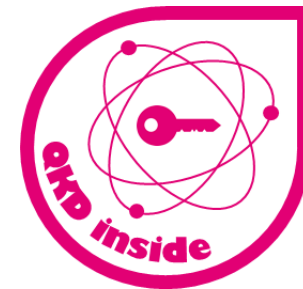
# Gap analysis for trusted nodes and network devices

Walter Jontofsohn

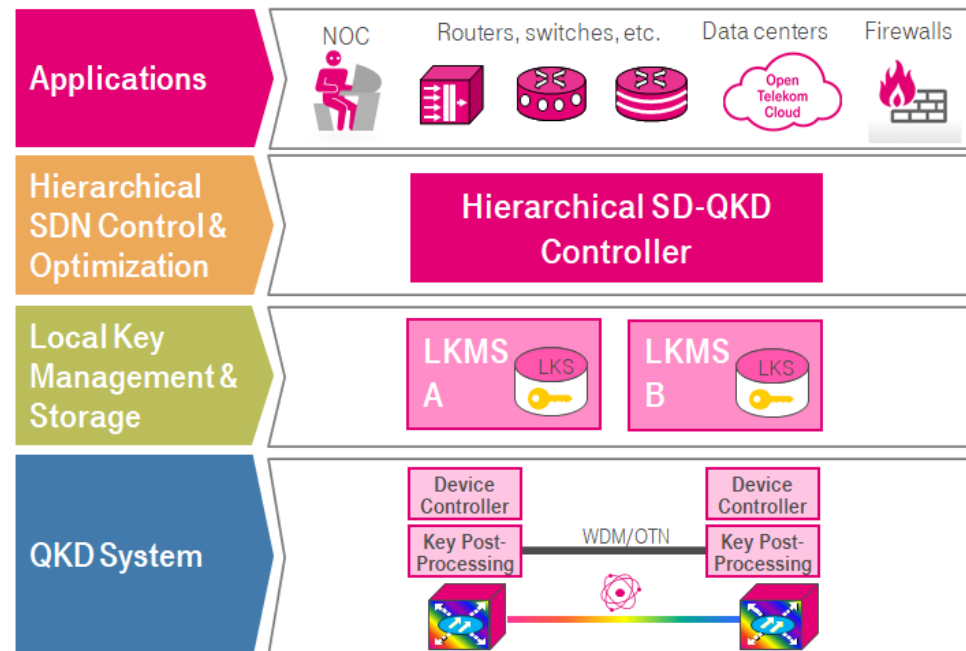
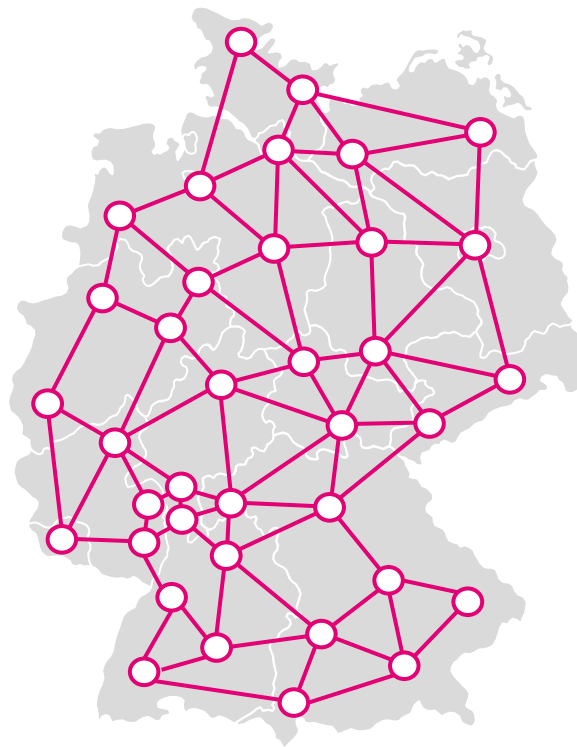
DT Technik GmbH, 28<sup>th</sup> of September 2021



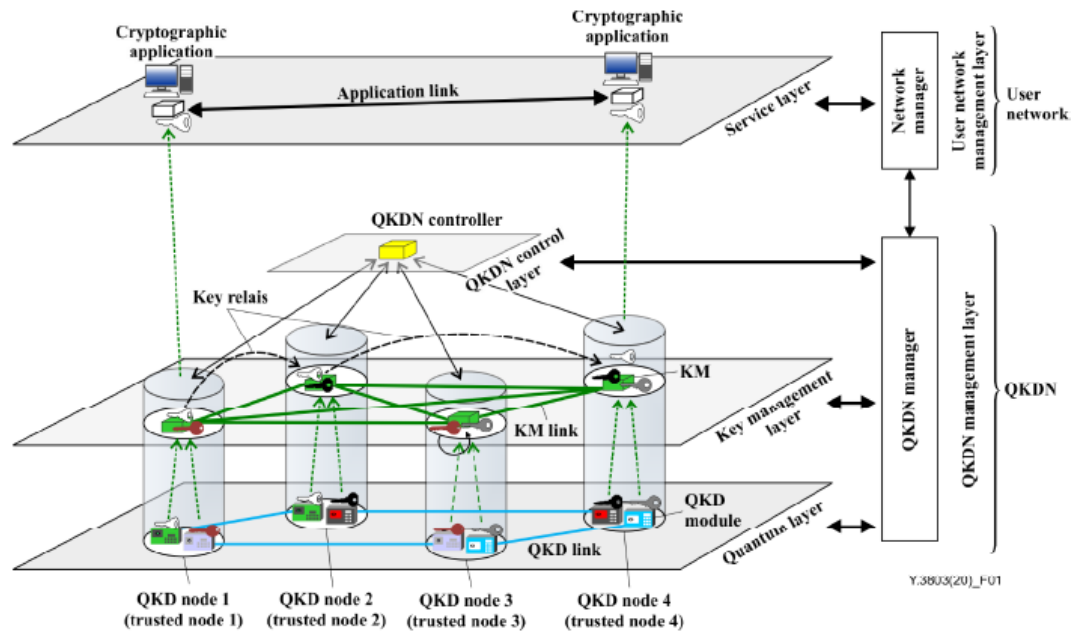
# DT's Vision: A Carrier Grade QKD Platform



- A QKD Network delivering quantum secure keys and highly secured transport service all over Germany
- Clear demarcation of QKD platform components and key consuming devices / applications
- Minimally invasive intervention to existing network assets
- Smooth integration with
  - ... today's crypto mechanisms
  - ... PQC extensions

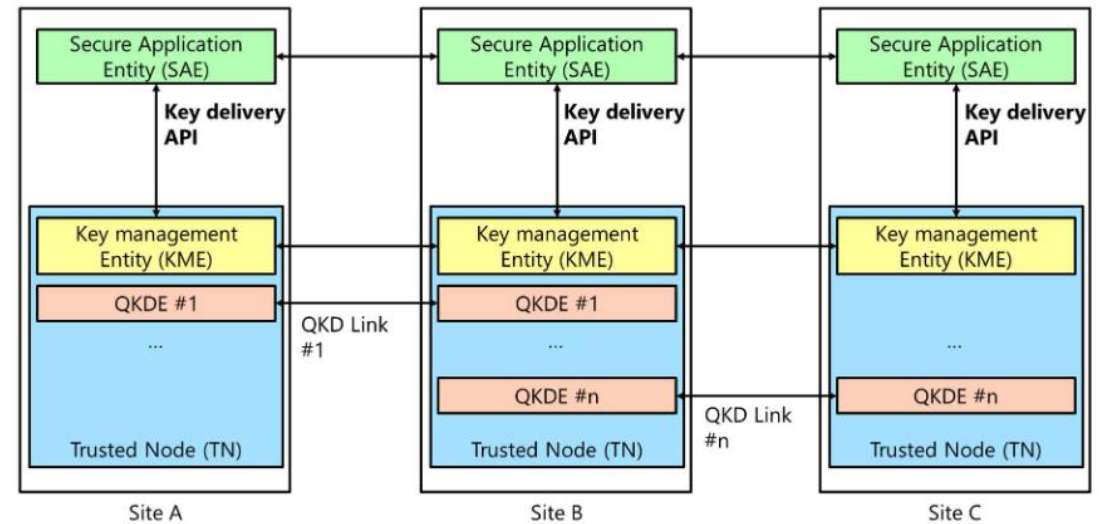


# Carrier Grade: What we already got



ITU-T Y.3803

Probably suited for KM <-> App, but not for QKD-module <-> KM Layer



ETSI GS QKD 014 V1.1

# Carrier Grade: What we need

Work In Progress

- Key Forwarding:
  - OTP vs KDF
- Trusted Nodes
  - What kind of requirements?
- Several key interfaces
  - Some were already addressed
- Umbrella Management
  - Unified notification (FCAPS)

