Martin Kolde

System Engineer and Researcher WTE Research @ Apple, Munich

Experience

In the past

- Parallel Compute (MPI)
- Industrial Protocols (Profibus, Interbus, CAN)

Today (which is already almost 20 years!)

• Cellular Communication (Architecture, Research, Prototyping)

Some current Interests

- End-2-End Low-Latency Communication for 6G
- Multi-path and Multi-link Communication
- Application Optimized Communication



Questions

Within a cellular system, data traverses multiple layers before reaching its destination, incurring additional time delays. Consequently, optimizing latency and quality of experience (QoE) has been a significant focus in the past. However, emerging technologies such as extended reality (XR) are gaining popularity. These new applications often demand latency constraints of 5 millisecond to 10 milliseconds between end-to-end devices.

- Is the ISO/OSI 7-Layer, or the Telecommunications Protocol Model (aka. TCP/IP Model) still relevant?
- Do we need (more) cross-layer communication?
- How can ML or Semantic Communication help to relax the latency challenge?