

Motivation: Take advantage of the emerging 5G/6G infrastructure to support and optimize AI computations across the Cloud/Edge/IoT continuum

Current Status: data on the cloud/edge/IoT continuum strongly dependent on 5G legacy infrastructure

Main Challenge: accelerate cloud migration to the closest point of the edge where all data processing and connectivity occurs.

Additionally:

- Move from 5G enabled by AI (6G) to distributed (over Cloud/Edge/IoT) AI enabled by 5G/6G
- Silicon - monolithic Integration of 5G Baseband, CPU and NPU into a single SoC (open processor (i.e. RISC-V Based) for Concurrent Multi-RAT (4G, 5G), SA and NSA Modes and supporting Embedded Artificial Intelligence Multi-Access Edge Computing (MEC)
- In-Line Acceleration Card for converged 5G/6G and AI acceleration card over Open RAN offering telco-class, multi-carrier, mMIMO performance. Virtualized RAN and machine learning for the Distributed Unit (DU).
- Software programmability with high-speed, polymorphic interfaces which can serve as an all-in-one eNB/gNB disaggregated RAN (an elastic platform that dynamically scales and tailors across the rich broad range of 4G and 5G workloads ) while also offers an AI compute platform for MEC use cases