CROSSCON aims to provide a unified set of APIs for the OS and applications to use TEE functionalities and trusted services. It also seeks to improve and enrich traditional trusted services supported by existing TEEs, especially in the context of RISC-V.

**RISC-V Opportunity**

**Standardization of Software Architectures for Trusted Execution**
- Engage with RISC-V Working Groups (WG) and Special Interest Groups (SIG), e.g., AP-TEE and Trusted Computing.
- Contribute to developing the specs, in particular by sharing requirements from the CROSSCON use cases and other TEE model.
- Add support on the CROSSCON security stack for the different RISC-V TEE specs and architectures.

**Development of Novel Security Hardware Extensions and Mechanisms**
- Research potential ISA extensions for specific Trusted Services (derived from the use cases), e.g., hardware primitives for authentication services or Control-Flow Integrity enforcement.
- Develop hardware security mechanisms that provide security guarantees to non-CPU hardware components similar to those offered to the CPU by the TEE.

**Road Map and Conclusion**

The CROSSCON project started in Q4 2022 by defining the requirements and refining the use cases. Activities will now focus on two streams:
- A "horizontal" stream around the development of the heterogeneous and interoperable security software stack;
- A "vertical" stream towards security-oriented hardware extensions and domain-specific hardware architectures.

We expect to engage with RISC-V International and contribute across the related WG and SIGs.