

Thesis Proposal

Utilize Standardized IoT Protocols in Proprietary Products



Description

ADB Safegate is always looking for solutions that will improve the safety, throughput and efficiency at airports. We have many world-leading products in our portfolio, and many of them integrate with other systems to fulfil the necessary operations at an airport. Interoperability in communication between different systems is assured at the transport layer by using standards, e.g. TCP/IP, but on the application level proprietary protocols are typically used.

The project aims to investigate the possibilities of using standardised protocols typically used in IoT domain for the application layer, to simplify integration and testing of protocol APIs. Example of such protocols could be HTTP/SOAP/REST or COAP. The thesis is exploratory in the sense of investigating the capabilities of current, and future, technology, and how well it matches the needs of our systems. But the thesis project will also have a large part in designing and implementing a prototype with associated API that can be evaluated, and might be a starting point for future development.

The thesis is most suitable for two students working together. It will be based in Malmö and may also include visits to other offices.

Tasks within the project:

- ▶ Identify requirements of inter-system comm.
- ▶ Make inventory of suitable standards
- ▶ Select candidate and design API
- ▶ Implement a prototype
- ▶ Evaluate the chosen solution

Suitable skills and interests:

- ▶ Computer communication and protocols
- ▶ Communication API design
- ▶ Embedded software development
- ▶ IoT and systems-of-systems

Application

Please send your application by December 1st 2017 to thesis@adbsafegate.com.

Title your email **"Master Thesis – IoT Protocols"**

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