Working Student

Secure Data Storage for Embedded Systems

Task Description
The goal of the project is the implementation of an embedded system for secure storage of sensitive data, e.g., surveillance videos. For this project, several open positions are available, focusing on one of the following topics:

- Design and implementation of efficient encryption scheme for video data.
- Implementation of key management and system’s integrity protection based on a Trusted Platform Module (TPM).
- Development of a cross-platform client software to enable GUI-based access to the device.

The monthly working time is 40 hours and can be increased if desired. The possibility to pursue Master’s or Bachelor’s thesis in the given area as a continuation of this work is provided.

Prerequisites
Depending on the concrete topic, some of the following requirements are placed upon the candidate:

- Practical experience with Linux programming
- Good knowledge and experience in C/C++ or Java programming
- Knowledge in the field of image processing and video codecs
- Good knowledge and experience in embedded software development and Yocto toolchain
- Knowledge in trusted computing and Trusted Platform Module (TPM)
- High motivation and independent work style

Contact

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