Privacy-Friendly Parking

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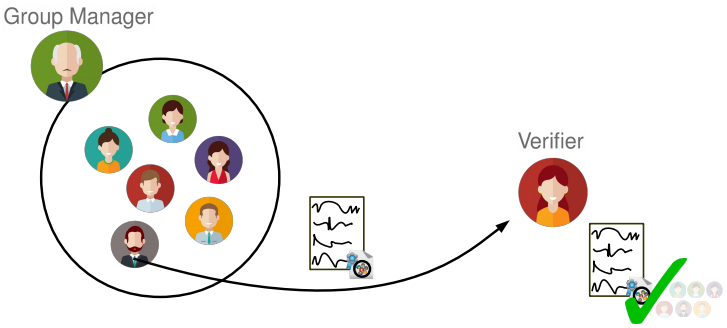
Motivation

Group signatures are an important tool in privacy enhancing crypto. They allow to set up a group so that every member of this group can anonymously sign messages on behalf of the group.

We are currently working on an application for privacy-friendly parking. We already have a plan how to employ group signatures in our use case and need help with the implementation.

Goals and Tasks

- Get familiar with the concept of group signatures.
- Understand the protocols to be implemented.
- Implement a group signature scheme.
- Write a simple demonstrator application.



Literature

- D. Derler and D. Slamanig
  Fully-Anonymous Short Dynamic Group Signatures Without Encryption
  IACR Cryptology ePrint Archive 2016
  http://eprint.iacr.org/2016/154
- O. Blazy et al.
  Non-Interactive Plaintext (In-)Equality Proofs and Group Signatures with Verifiable Controllable Linkability
  CT-RSA 2016
  http://eprint.iacr.org/2016/082

Deliverables

- Project files (zip, cleaned)
- Documentation (pdf)
- Presentation (pdf)

Schedule

- Start Immediately
- Month 1 Reading literature
- Month 2 Implementing
- Month 3 Final deliverables

Studies

☒ INF ☒ TEL ☒ SW

Prerequisites

- Interest in crypto
- Java programming

Advisor / Contact

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