

Proposal for Master thesis in Computer Science

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Working Title: Security in UDDI

Link to master project: <http://dvd009.erlis.se>

Size: 2 x 20 p

Advisor at BIT: Per Mellstrand, Ph.D. Student

Advisor at AerotechTelub: Peter Bayer, M.Sc. Software Engineering

Examiner: Prof. Rune Gustavsson

Start- and end date: 200502 - 200506

Thesis type: Evaluation project, industry based

Background: AerotechTelub needs to investigate the security in a web-service environment.

Aims and objectives:

Aim:

- To evaluate the security of a service registry (UDDI) within a .NET environment.

Objectives:

1. Complete literature survey of existing UDDI implementation techniques;
2. Define two possible solutions according to the research questions stated below;
3. Implement the secure proof-of-concepts as a software demonstrator;
4. Test the security in the proof of concept;
5. Completing the report detailing the outcome of the literature research and the outcome of the proof of concept.

Research questions:

- What techniques are needed to secure a service registry (UDDI)?
- How can signing and verification be applied when registering a new service in UDDI?
- Does security increase if information in a service registry (UDDI) is mirrored in a secure peer-to-peer network to other UDDI's?

Expected outcomes: A secure methodology for implementing UDDI

Research methodology:

Action research, case study