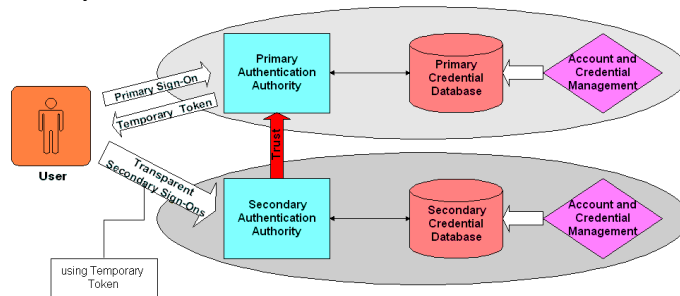


# Diploma-Thesis / Master-Thesis

## Single Sign-on in Web Service Federations

### Topic

Web services are a modern technology for implementing distributed service-oriented systems. Besides providing a programming language neutral and platform-independent framework based on XML and other Web standards, Web services can also be invoked across *autonomous* and *independent* service providers. Hence the secure usage over the inherently insecure Internet has to be guaranteed. Several standards for secure authentication, authorisation and single sign-on have been established over the last years.



### Goal of the Thesis

- Provide an overview of current standards (like *WS-Security*, *Shibboleth*, *SAML 2.0* and *OpenID*)
- Show how these standard can be used together with Web services technology
- Develop several concepts for a single sign-on in service federations using selected standards
- Evaluation of the applicability of the concepts

### Requirements

- Bachelor resp. Vordiplom
- Lecture “Service-oriented Architecture” or similar lectures
- Knowledge of Web services and XML technology
- Knowledge of security and trust in distributed systems
- Programming skills in Java and XML
- Analytical skills

**Key words:** SOA, Web services, Authentication, Authorisation, Single Sign-on

Theoretical (Analytical)

Empirical (Simulation)

Practical (Implementation)

Literature