



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Access Control Markup Languages for XML Documents

Semesterarbeit

Introduction and Project Objectives

Damiani *et al.*, the IBM Tokyo Research Laboratory, and OASIS have each developed an XML-based access control markup language for XML documents.

The main objective of this project is to compare these access control (markup) languages to each other as well as to ContentGuard's XrML in terms of semantics (granularity, expressible security goals, black-list vs. white-list approach, etc.) and syntax.

An optional ("if time left") objective is to look into the question of whether an XML document's schema is appropriate for defining its security class.

Work Plan

This project will be conducted in August 2004 and starts on Monday, August 2nd:

Week 1: Study and summarize Fine-Grained XML Access Control (Damiani et al.), the eXtensible Access Control Markup Language (XACML, OASIS), the XML Access Control Language (XACL, IBM Tokyo Research Laboratory), and the eXtensible rights Markup Language (XrML, OASIS).

Weeks 2 & 3: Come up with an illustrative example XML document as well as illustrative example security requirements, and show how the requirements translate into access-control policies in the different access control markup languages. Discuss the advantages and disadvantages of the four proposals with respect to the example but especially in general.

Week 4: Finish the report, prepare the talk.

Tuesday, August 31st: Give the talk.

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This project might serve as basis for the student's Master's thesis (at the IBM Zurich Research Laboratory and co-supervised by Günter Karjoth).