Usable Security and Mobility

Project Overview

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Is usable security in a dynamic, mobile, and multi-user environment?

Do we maintain usable security in an ever changing environment?

Possible research topics:

- What is a domain or application specific knowledge and how to capture it?
- What services/functionalities should be provided?
- What are representative scenarios of use?
- How to model and handle possibly conflicting users’ security preferences and policies?
- How to measure quality of usable security (QoUS)?
- How to design and implement a usable security testbed?
Ign and Development

Antic web and related standards (WSDL, OWL, RDF, etc.) to maintain specific knowledge and ontologies (Protege).

Key specification, enforcement and integration (Protégé) for ubiquitous access through web services (SOA and REST) with interfaces and metaphors (Google Earth).

protégé

W3C OWL W3C RDF

REVERSE®
Study: LUMENHAUS


LUMENHAUS is Virginia Tech’s 2009 entry to the U.S. Department of Energy Solar Decathlon competition. LUMENHAUS delivers a building that is a home to live, literally and figuratively.”

LUMENHAUS is highly automated. There are many sensors and tools available thus providing an “enriched” environment, a place, where social interactions among users take place. The house can be used in many contexts, such as residence, workplace, classroom, etc.

The house can be a part of the larger place that includes the surrounding area and other buildings.