SENSORIA

Software Engineering for Service-Oriented Overlay Computers (2005 – 2010)

SENSORIA, Software Engineering for Service-Oriented Overlay Computers, investigates novel approaches to the engineering of software systems for service-oriented overlay computing based on rigorous formal methods. Within SENSORIA, modelling techniques based on solid mathematical foundations that allow for verification and analysis are investigated. ASCENS will extend on the work performed in SENSORIA and extend the results achieved on languages, and verification techniques, and tooling infrastructure for service overlays. More specifically, we will integrate the insights and formal results on modelling languages and reconfiguration techniques that were attained in the SENSORIA project.

SENSORIA website

MOBIUS

Mobility, Ubiquity and Security (2005 – 2009)

MOBIUS aims to develop novel technologies for trustworthy Global Computing. It focuses on proof-carrying-code concept to ensure safe and secure Java applications on mobile phones and PDA. This is done through applying trust management techniques on distributed systems. ASCENS also aims to induce some sort of trust in ensembles, but the information shared by components is general knowledge and is not restricted to mobile Java code.

MOBIUS website

CRESCCO and FLAGS

Critical Resource Sharing for Cooperation in Complex Systems (2002 – 2004)

Foundational Aspects of Global Computing Systems (2002 – 2005)

CRESCCO and FLAGS investigate the management of resources (e.g. bandwidth, frequency, energy, processor time) in Global Computing systems that are composed of very large numbers of independent components. These components are possibly mobile, autonomous and compete for resources. ASCENS will take inspiration from the techniques developed for resource allocation. However ASCENS aims to consider collaborative rather than competing components. This collaboration will be made through knowledge sharing.

CRESCCO website

FLAGS website