

Reusable, semantic, and context-aware micro-architecture. Approach to managing interoperability and dynamics in smart spaces

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Susanna Pantsar-Syväniemi, D.Sc. (Tech.)

susanna.pantsar-syvaniemi@vtt.fi, +358 40 505 6682

Information – produce, distribute, exploit



applications

devices / things

Internet / networks



Smart Space - Internet of Things



Definition and Management of Context Information

increasing amount of information

filtering the information

semantics

timely

context-awareness

relevant information



dynamics

openness

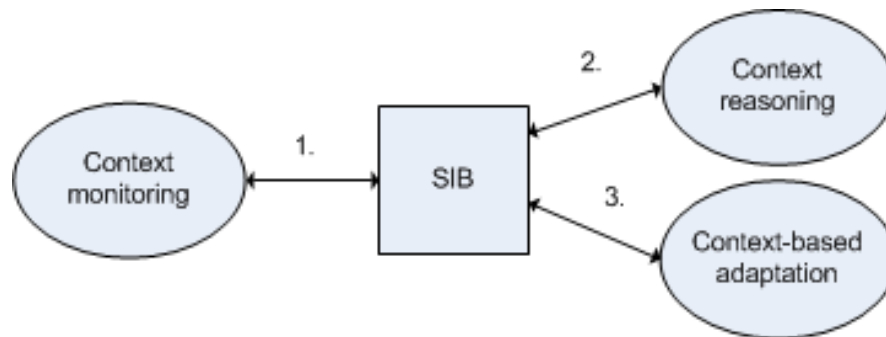
data security

real-time

reusability

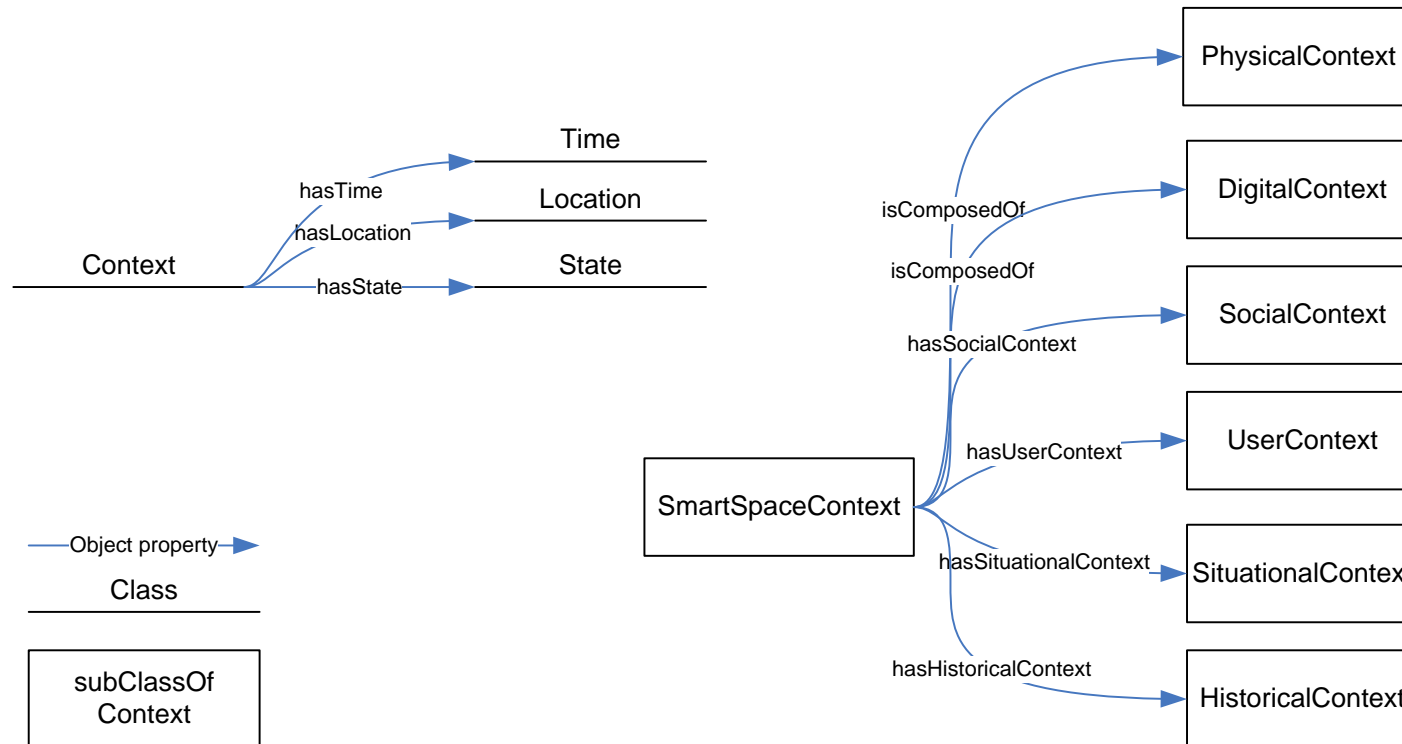
modularity

Context-Aware Micro-Architecture (CAMA)



- Scalable (modular, autonomous agents)
- Reusable – as such or partly
- Semantic interoperability
- Real-time context management
- Configurable at run time

Main class of Context Ontology (CO4SS) - Context

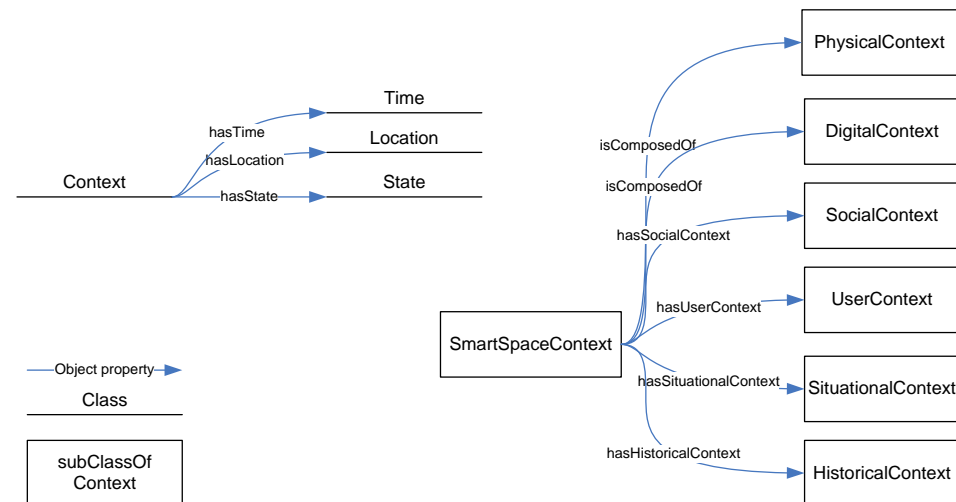
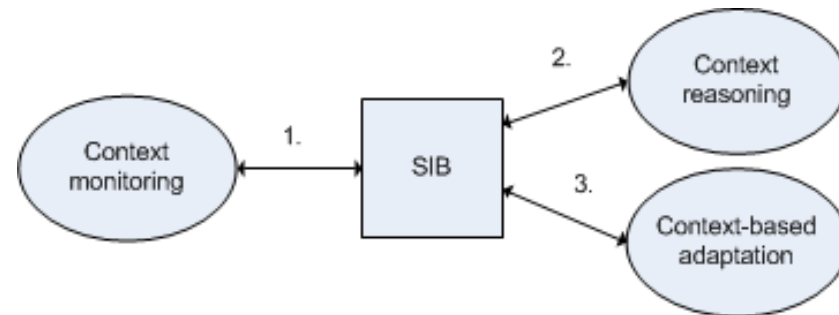


- Generic and expandable to different applications and to run-time quality management
- Concepts to recognize situations
- modular (consists of subsets), supports reusability

How to enhance

More testing

- with 'Big Data' database
- multiplying the amount of CAMA agents
- Stressing the context reasoning agent with more rules and with more nested rules



Thesis, video: Sofia VTT Smart Door

Thesis,

<http://www.vtt.fi/inf/pdf/science/2013/S37.pdf>

Sofia VTT Smart Door,

<http://www.youtube.com/watch?v=anRW0y2r1Q0>