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

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Information – produce, distribute, exploit

- Internet / networks
- devices / things
- applications
Smart Space - Internet of Things
Definition and Management of Context Information

- increasing amount of information
- filtering the information
- semantics
- timely
- relevant information
- context-awareness
- openness
- dynamics
- 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,

Sofia VTT Smart Door,
http://www.youtube.com/watch?v=anRW0y2r1Q0