

Model Based Service Composition

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Service Mashups

Application Background of Siemens (sample use cases)

- Mobile Access to Business Processes
- Healthcare
- Energy Management
- Industry & Building Automation (distributed SCADA)

Common ground

Sensors provide status information to the mashup

Actors adapt their actions to control commands and status changes

Control services are used to configure and operate the system

- Communication between devices & services for complex mashup
- Abstraction and modelling offer dynamic and flexible exchange of entities
- Standardised web technologies reduce development costs
- Enhanced Usability through established techniques and design patterns

Our Expectations towards XG Results

- Understanding of the scope of UI models
How can UI models be used to adapt the presentation to different devices?
How to ensure that important status messages are delivered to the client?
How to provide connectivity of service backends and communication between distributed services
- Compilation and examination of a set of relevant technologies
Standards and relevant technologies
Suitable combination of standards
- Identification of limitations and white spots
Proposal for clarifications, amendments or extensions of standards
Missing standards

Current Work @ Siemens

Development and demonstration platform for energy management

- Network of embedded services which communicate via XML
- Interfaces to external data sources
- Simulator interface for complex energy transport network

Service modelling for dynamic mashups

- Data model description using XForms
- Description of dependencies and constraints
- Linking and embedding of services
- User Interface aggregation

Goals:

- Heterogeneous services and devices, enhanced compatibility
- Dynamic topology, (semi-) automatic reconfiguration, self administration
- Plug 'n' Play services

Proposed Work Items

Discussion on use cases

- Resulting in a common understanding of our mission
- Definition of the focus of the future work

Requirements evaluation

- What is needed to implement the planned use cases
- Identification of relevant technologies

Modelling techniques

- Development and evaluation of methods for service modelling

Conclusion

- Compilation of best practice rules and definition of design patterns
- Identification of missing functionality and standards

Discussion

