



Service Oriented Architecture

An informal view from OASIS



What is Service Oriented Architecture

- Service Oriented Architecture (SOA) is a paradigm for organizing and using distributed capabilities that may be under the control of different ownership domains.

Why is it different?

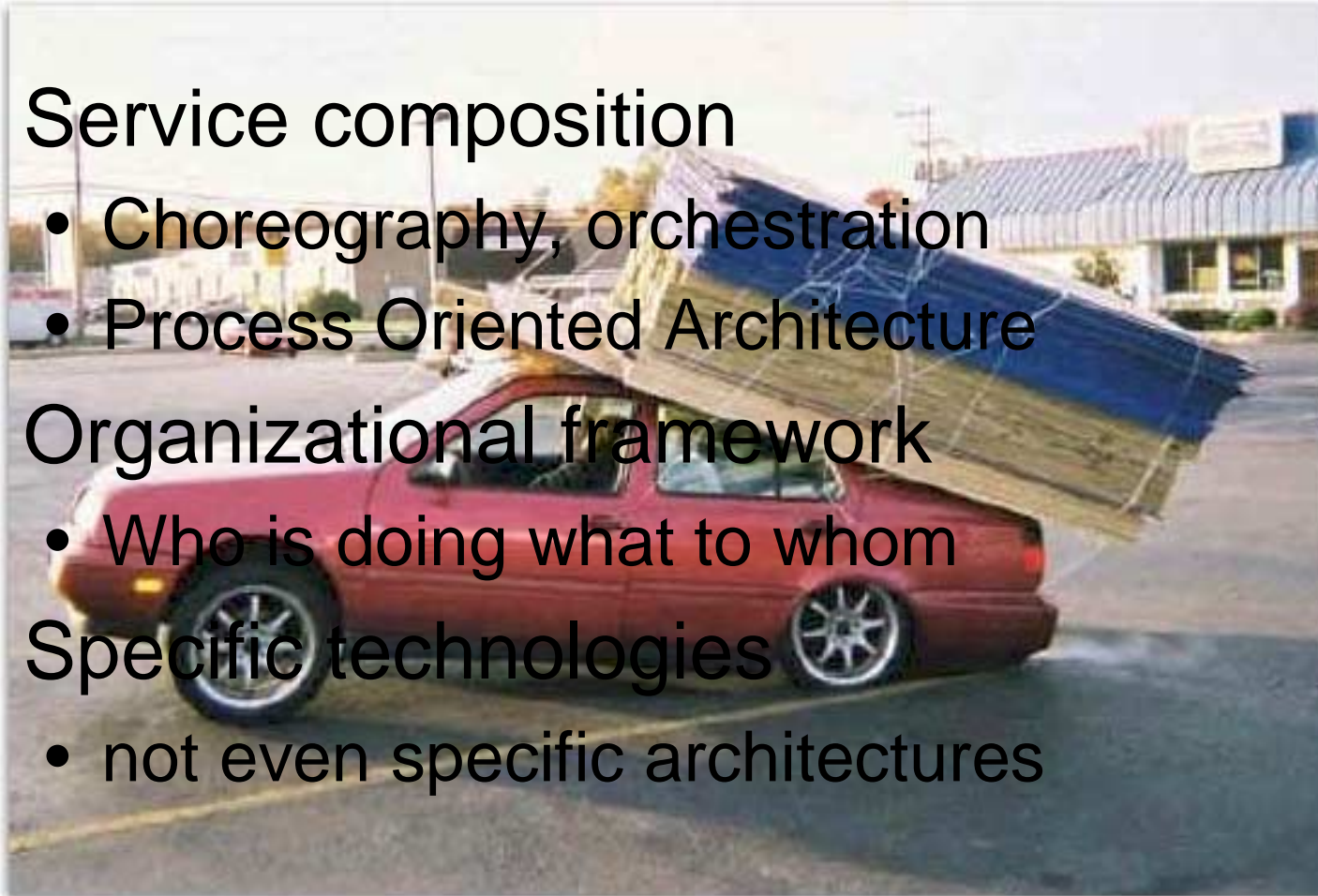
- SOA reflects the reality of ownership boundaries
 - CORBA, RMI, COM, DCOM, etc. all try to implement *transparent* distributed systems
 - Ownership is of the essence in SOA
- SOA is task oriented
 - Services are organized by function
 - Getting something done
- SOA is modeled on human organization
 - Trade leads to efficiencies and scalability

Why Service Oriented Architecture?

- Drivers:
 - Large scale Enterprise systems
 - Internet scale provisioning of services
 - Reduce the cost of doing business
- Benefits
 - Build scalable, evolvable systems
 - Scalable because minimizes assumptions
 - Manage complex systems
 - Encourage re-use of business function 7

What is not in the RM

- Service composition
 - Choreography, orchestration
 - Process Oriented Architecture
- Organizational framework
 - Who is doing what to whom
- Specific technologies
 - not even specific architectures



Elements of SOA

- Visibility
 - Awareness, willingness and reachability
- Interaction
 - Communication, execution context, process model, information model
- Real World Effect™
 - Employment of capabilities to achieve goal
 - Shared state



Reference Model

- An abstract framework for understanding significant relationships among the entities of some environment that enables the development of specific architectures using consistent standards or specifications supporting that environment.
- Consists of a minimal set of unifying concepts, axioms and relationships within a particular problem domain.
- Is independent of specific standards, technologies, implementations, or other concrete details.

Reference Model


- Service
- Interaction
- Real World Effect
- Visibility

Service

- A mechanism to enable access to one or more capabilities
 - using a prescribed interface
 - consistent with constraints and policies as specified by the service description.
- Service provider
 - Entity that offers a capability
- Service consumer
 - Entity that uses a capability offered by a service provider



Interaction

- Process Model
 - Information Model
 - Execution context
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Conditions and Expectations

- Policy
 - Constraint representing the intention of a participant in a service
- Contract
 - Constraint representing an agreement between two or more participants.



Visibility

- Awareness
 - Service description
 - Discovery
 - Willingness
 - Policy & contract
 - Reachability
 - Communication
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Where we are

- Started in May 2005
- Committee draft by end of year
- Plan to continue with a reference architecture
- <http://www.oasis-open.org/apps/org/workgroup/soa-rm/>