

Automatically Refining Composite Service's Adaptive Behaviour Policies

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The Problem

- Composite Service are not adaptable without recomposition.
- Web Service descriptions doesn't exposes internal service (adaptable) behaviour.
- Policy applied to a composite service are not automatically refined to its constituents services.

The Solution

- We suggest that the atomic service's adaptive behaviour be described as Finite State Machines (FSM).
- We developed a method to automatically aggregate the constituent service's FSM for a composite service.
- We allow a user to apply policies to a composite service according to the service's adaptive behaviour.
- We devised a way to automatically refine these policies to its relevant constituent services.

The Results

- We created a tool which allows an user to describe & view the Ontological Service Model of a composite service.
- This tool assists an user in describing service's adaptive behaviour and composite service's policies with the use of a GUI.
- It automatically aggregates the FSM for a composite service and automatically refine the composite service's policies.

Conclusion



- We are currently evaluating the tool:
 - How effective it is in describing adaptive behaviour and aggregating them.
 - How effective it is in describing service policies and refining to its constituent services.
 - How intuitive and easy to use it.