SeGA: A Mediator for Artifact-Centric Business Processes

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Challenges in a Collaborative BP

Background application: A “pre-sell” permit approval process in Hangzhou Housing Management Bureau in China

Difficulties:
- To monitor the global states of my request
- To specify and check the global constraints
- To change process schema

A Proposed Approach

- Separate data and BP engines
- Work as a mediator to store data and orchestrate engines

1. SeGA receives incoming events
2. A dispatcher fetches the correlated BP instances according to the type of the incoming event
3. The dispatcher sends the incoming event, the BP instances, and their schemas to the corresponding engine
4. The engine then processes the incoming event, updates the BP instances, and sends outgoing events
5. The dispatcher retrieve the updated BP instances from the engine and store them back to the repository

Features of SeGA

A business process (BP) mediator to support
- Monitoring and querying (on a collaborative BPs)
- Uniform constraint checking (upon choreographies)
- Dynamic modification (on running BP instances)

SeGA: Meeting the Challenges

How monitoring is supported
How constraint checking is supported
How dynamic change is supported

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