

Graduiertenkolloquium Angewandte Informatik

Web-oriented Event Processing

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Abstract:

In this work we present an approach for Web-oriented event processing based on the combination of efficient event processing, expressive Semantic Web technologies and the management thereof. The approach is a distributed semantic system that serves as an Event Marketplace: heterogeneous events from the Web modelled in RDF are matched and integrated using a processing language we designed and describe in this work. The system consists of three main components: an event-driven service bus to connect event sources, a storage layer to maintain historic events and an event processing layer to combine, integrate, filter and derive events. Event-driven applications are implemented on this architecture by expressions in a language supporting hybrid queries mixing real-time (on pushed data) and historic (pull data) queries. A governance component enforces efficient access control on event streams and storage. The main advantages of the system are its Web-orientation by adhering to several open and extensible standards, its pattern language offering the combination of real-time and historical queries on events and its governance capabilities creating a multi-tenant system based on permissions. The system uses Web technologies such as Linked Data, RDF and SPARQL to model, organize, locate, process and control access to events.

Termin: Freitag, 25. April 2014, 14.00 Uhr

Ort: Englerstraße 11, 76131 Karlsruhe
Kollegiengebäude am Ehrenhof (Geb. 11.40), 2. OG, Raum 231
(Hinweise für Besucher: www.aifb.kit.edu/web/Kontakt)

Veranstalter: Institut AIFB, Forschungsgruppe Wissensmanagement

Zu diesem Vortrag lädt das Institut für Angewandte Informatik und Formale Beschreibungsverfahren alle Interessierten herzlich ein.

Andreas Oberweis, Hartmut Schmeck, Detlef Seese, Wolffried Stucky, Rudi Studer (Org.), Stefan Tai