

First IEEE International Workshop on Requirements Engineering For Services (REFS'07)

In conjunction with COMPSAC 2007

Beijing, China, July 24 - 27, 2007

URL: <http://conferences.computer.org/compsac/2007/workshops/REFS.htm>

Call for contributions

Service orientation is rapidly emerging as the leading network computing paradigm (Comm. ACM Oct 2003 special issue). At the same time, services have become the dominant form of economic activity and increasingly the basis for socio-economic organization. The commonalities and synergies among service concepts across the levels of IT infrastructure and business and social organization will lead to powerful innovations and new developments, triggering a call to establish a new discipline of “Services Science, Management, and Engineering (SSME)” (Comm. ACM July 2006 special issue). A common feature of service orientation across all levels is the need to understand and characterize what the customer wants, including socio-technical constraints, and to design services that can meet those requirements effectively.

In recent years, requirements engineering (RE) has emerged as a critical area in software and systems engineering, as many systems fail due to poorly understood, ill-defined, or ill-conceived requirements. Requirements engineering research aims to advance concepts, frameworks, theories, and techniques for identifying, expressing, analyzing, validating, communicating, and negotiating requirements, which are then used to guide and drive system design and implementation.

Much of the same concepts and techniques could potentially be applied to services, with the benefit of systematic methods and scientific inquiry. However, service orientation introduces many new challenges. Service providers and service users interact much more closely. Knowledge is created and exchanged among customers and suppliers. Instead of a single set of requirements on a technical system, there are networks of providers and users, each with requirements and expectations on each other – some based on tacit social conventions, and each with requirements on their technical IT systems. Service design and operation often proceed in parallel, as new knowledge and experiences are incorporated into service systems and processes on an ongoing basis. Automated processes are richly interwoven with human action, decision, and judgment. Some of the interactions will adhere to open standards, while others may be informally negotiated. There are highly dynamic on-the-fly network configurations as well as long-term stable relationships.

Will existing requirements engineering methods and techniques be suitable for a service oriented environment? What adaptations, extensions, or re-conceptualizations will be needed? Should there be distinctive requirements frameworks especially for services? How can requirements engineering contribute to a new discipline of services science, management, and engineering? Will service orientation lead to a rethinking of the field of requirements engineering? These are some of the key questions to be explored at this workshop.

The workshop aims to provide a forum for a highly interactive and in-depth discussion of all issues related to requirements engineering for services. An objective of the workshop is to define a research agenda for the area based on the discussions and contributions from participants. We

invite contributions from researchers and practitioners on a wide range of topics, including but not limited to:

- Service requirements models and descriptions
- Service requirements identification, elicitation, and acquisition
- Service requirements communication, negotiation, and validation
- Service requirements analysis and design methods
- Service engineering and management processes
- Knowledge engineering and management for Services
- Service ontologies, metrics, and benchmarks
- Service design, management and manufacturing
- QoS modeling and evaluation frameworks
- Trust, delegation, and negotiation models for services
- Security, privacy, and safety for services
- Services related architecture – Web Service Architecture, Service-Oriented Architecture
- Service enabling technologies
- RE techniques for business process redesign
- RE techniques for business model and value analysis
- RE techniques for services discovery and composition
- RE techniques for service quality
- Conceptual modeling for services management and engineering
- Empirical evaluation of RE for services
- Conceptual frameworks for RE and Services
- RE techniques for aligning business services and computational services
- RE techniques for Service-Oriented Computing & Service-Oriented Architecture
- RE techniques for adaptiveness and agility in services
- RE techniques for socio-technical analysis and design of services
- Services and requirements engineering for pervasive computing and ambient intelligence
- RE and SSME techniques for user experience
- RE and SSME techniques for lifecycle management

Likely participants:

REFS 2007 aims to bring together researchers and practitioners interested in studying requirements-related issues in the broad context of service-related problems. Participants will include academics and industry practitioners in RE, SE and services.

Primary organizers:

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Submission:

Papers must be submitted electronically via <http://compsac.cs.iastate.edu/2007/REFS/>. Please follow the instructions posted on the web site. The format of submitted papers should follow the guidelines for IEEE conference proceedings. All papers will be carefully reviewed by at least three reviewers. Papers will be accepted (and can be submitted) as either regular papers, short papers, or fast abstracts. Acceptance and final category depends on reviewer feedback.

Accepted papers or fast abstracts will be published in the workshop proceedings of the 31th IEEE Computer Software and Applications Conference (COMPSAC 2007). It should be noted that all IEEE COMPSAC conference proceedings are published by IEEE Computer Society

Conference Publishing Services (CPS). All CPS Publications are captured in the online IEEE Digital Library, and professionally indexed through INSPEC and EI Index (Elsevier's Engineering Information Index).

At least one of the authors of each accepted paper or fast abstract must register as a full participant of the workshop to have the paper or fast abstract published in the proceedings. The authors of a number of selected papers of special merit will be invited to submit a revised and extended version of their papers for possible publication in a special issue in a Journal which is to be determined.

Proposed duration and format:

4 sessions

- Full research papers (max 6 pages, IEEE format)
- Short papers – research-in-progress, industrial experience, problem description (max 4 pages)
- Position papers – (max 2 pages)
- Panel
- Invited keynote talk(s)
- Open discussion

Important dates

Paper Abstract Submission:	Feb 18, 2007
Full Paper Submission:	Feb 25, 2007
Paper Notification:	March 30, 2007
Camera Ready Paper Submission and Author Registration:	April 30, 2007