CALL FOR BOOK CHAPTER PROPOSALS

Proposals Submission Deadline: 15-January-2009
Full Chapters Due: 15-April-2009

Enabling Context-Aware Web Services: Methods, Architectures, and Technologies

A book edited by Dr. Michael Sheng (The University of Adelaide, Australia)
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Introduction

Context awareness refers to the capability of an application or a service being aware of its physical environment or situation (i.e., context) and responding proactively and intelligently based on such awareness. With recent developments in computer hardware, software, networking, and sensor technologies, context awareness becomes one of the most exciting trends in computing today that holds the potential to make our daily lives more productive, convenient, and enjoyable. For example, a tour-guide service gives tourists suggestions on the attractions to visit by considering their current locations, preferences, and even the prevailing weather conditions.

In the last decade, Web services have become a major technology to implement loosely-coupled business processes and perform application integration. Through the use of context, a new generation of Web services (i.e., context-aware Web services) is currently emerged emerging as an important technology for building innovative context-aware applications. Indeed, considering the inextricable connection between context awareness and mobile devices, this trend is fully in line with the vision of “the Future Internet”, which is built around mobile devices, Web services, and in pervasive environments.

“Enabling Context-Aware Web Services: Methods, Architectures, and Technologies” is intended to compile the newest developments and advances in context awareness and Web services. It will offer a comprehensive and systematic presentation of methodologies, architectures, and technologies that enable the development of context-aware Web services.

Targeted Audience
“Enabling Context-Aware Web Services: Methods, Architectures, and Technologies” is intended for an audience of researchers and engineers who are working in distributed computing, databases, and e-Business (primary application areas of service-oriented computing) and graduate students who wish to learn and spot the opportunities for their studies in this emerging research and development area. It will be of general interest to anyone using the service paradigms for software development, particularly on developing context-aware applications.

Recommended Topics

The book will provide a reference point of recent advances on context-aware Web services, organized in five parts.

The first part (background) gives a historical overview (literature survey) of the context-aware Web services.

The second part (Methodologies) focuses on the principle of context awareness in Web service domain and various ways to model context-aware Web services at the specification level. Topics that could be included in this part (but not limited to) are:

- Context information and context representation supported in Web service context-aware systems
- Models and languages for formal specification of context and policies in SOA
- Ontologies and context modeling for Web services
- Requirements engineering for context awareness
- Context-aware Web services development process and methodology

The third part (Architectures) focuses on the infrastructures, frameworks and standards for building context-aware Web services. Topics that could be included in this part (but not limited to) are:

- Light and flexible approaches to service and data integration
- Quality-aware framework for publishing and discovering Web services and sources
- Context awareness and Web services standards
- Middleware for dynamic and adaptive Web services and processes

The fourth part (Technologies) focuses on the various techniques adopted from general research areas e.g. semantic Web, database, artificial intelligence, and formal methods but applied in the context-aware Web service domain. Topics that could be included in this part (but not limited to) are:

- Model-driven development of adaptive Web services
- Context-based semantic matching for Web services composition
- Security and privacy in context-aware Web services development
- Software agents and context-aware Web services
- Approximate query answering models for dynamic environments
- Web services personalization using context
- Context quality verification

Finally, the fifth part (Applications) includes Case studies, datasets, and evaluation testbed on context-aware Web services.

**Submission Procedure**

All book chapters must be original and will be peer-reviewed in a double-blind manner. The selection will base on the relevance, clarity, and technical quality. Potential contributors are invited to first submit a **2-page proposal** that clearly addresses the main content, issues and contributions of the proposed chapter. An initial schedule is proposed as the following:

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<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Chapter proposal due</td>
<td>15 Jan 2009</td>
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<tr>
<td>Proposal acceptance</td>
<td>15 Feb 2009</td>
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<tr>
<td>Full chapter due</td>
<td>15 Apr 2009</td>
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<td>Notification</td>
<td>30 June 2009</td>
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<tr>
<td>Final chapter due</td>
<td>10 Aug 2009</td>
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**Manuscript Preparation**

Authors are advised to use LaTeX preparing their book chapters. The package including a LaTeX template for book chapter preparation will be available very soon at the [book Website](#).

Manuscripts submitted for review should not exceed 25 pages following the book format.

The leading author of each book chapter may get a free copy of the book.

*Submissions can be forwarded electronically to:*

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