

IEEE TASK FORCE ON E-COMMERCE
Newsletter



Vol. 1, Issue 2

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Executive Summary

This is a special issue of TFEC newsletter contributing to the review on WECWIS'02 conference.

The pervasive connectivity of the Internet and the powerful architecture of the WWW have created a tremendous opportunity for conducting business on the Internet. The terms e-commerce and e-business have been used to describe those systems and technologies that make conducting business on the Internet possible. The purpose of this workshop is to identify and explore the technical and related technology management issues and solutions for e-commerce on the Internet.

This year's WECWIS program features again a wide variety of papers focusing on cutting-edge topics. WECWIS has proven to be an excellent catalyst for further research and collaboration, and we fully expect that this year's meeting will continue this trend. The program features a variety of papers, focusing on topics ranging from Web services, to Internet infrastructures, auctions, and pricing. Many people have worked very hard to make the workshop possible. We would like to thank all who have helped to make WECWIS 2002 a success. The Program Committee members deserve all the credit for the excellent final program that resulted from the diligent reviewing of the submissions. Special thanks go to Lucy Cherkasova (Industrial Chair), Christof Weinhart (Publicity Chair), Sang Hyuk Son (Publication Chair), Haifei Li (Web Chair), and Anindya Datta (WIP Chair). Finally, we would like to thank the IEEE Task Force on E-Commerce, Chutney Technologies, Hewlett-Packard, IBM, and Oracle for their support of this workshop.

Liang-Jie Zhang, Editor
ZongWei Luo, Associate Editor

Web Services, XML, and Beyond

WECWIS 2002 successful story

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This year's IEEE International Workshop on Advanced Issues of E-Commerce and Web-based Information Systems (WECWIS 2002) end of June 2002 was strongly themed by Web services, XML, and related technologies. It was not only from the topics presented at the workshop that made the workshop so interesting. It was also the attendants of the workshop that came from very different research background together on the central topics of Electronic Commerce and Web based information systems.

In the spirit of Web services, the tutorials preceding the workshop were addressing Web service infrastructure, R&D challenges as well as architectures and applications. Following the tutorials, an afternoon session presented work in progress in the field of business process modeling, product classification systems, multi-agent negotiation strategies, and trading in heterogeneous market places.

Opening the workshop, the first keynote speaker, Matthew Devin, Director iAS Architecture at Oracle, brought it to the point that the good news with Web services and XML are that the difficult issues are still open. The risks of XML and Web services he identified are performance and scalability, the problem of schema evolution, and, with the metaphor of a cute puppy and an ugly dog, that XML presents itself nicely with such a variety of different standards that on the other hand makes integration and cooperation of applications difficult. The problems that are hard to handle are getting the right information out of an application, interpreting information in the right business context, adapting application processes, handling real-life hiccups and error scenarios and handling evolving data structures.

The over dinner talk was given by John Sayah, Program Director of Advanced Projects at the IBM Software group. With the emergence of Web services, John Sayah sees a significant advance in the continuing evolution of e-business. With Web services B2B applications can discover and compose services into powerful business solutions and contribute to the vision of *Dynamic e-business*—the dynamic adaptation of business process, collaboration, and choreography leading to the realization of innovative business strategies, offerings and relationships.

The sessions themselves grouped the contributions around the topics of Web Services and XML-Based Protocols, Business Processes and Workflow Technology, E-Markets: Pricing, Negotiations and Trust, Internet Infrastructure, Wireless Infrastructure and the Web, E-Commerce Applications: Personalization and Recommendation.

To give the gentle reader an idea of the research presented, we sketch some of the workshop's research contributions in the following. Examples of the work presented in the Web services and XML based protocols session are an advanced UDDI search mechanism that is capable of searching different UDDI registries in one single step to support B2B integration and the definition of a Service Level Agreement Language for dynamic electronic services. In the field of Business Processes and Workflow Technology, work was presented in which XML/XSLT is exploited for enhancing conversion of business document and in which XSLT to make it process-aware in the context of the workflow in Web applications.

In the field of wireless applications and the Web, work was presented that allows dynamic table summarization that suits small devices and complies with end users' preferences. Addressing the small display and limited input capabilities of mobile devices a middleware is proposed customized navigational structure to make the end user's access to the Web fast and simple.

Personalization and recommendation was addressed in work concerned with detection the client side activity in a browser such that a server application can exploit this behavior for content adaptation, proposal for an architecture for finding and brokering personalized Web services for E-Commerce applications, and strategies to make recommendation of Web pages employing concept associations.

The central theme of the over lunch key note by Alan Karp, Principal Scientist at HP Labs, was "E-nabling the E-economy". Karp finds that E-services are out there and should not only be used but interact and be composed for the end-user's satisfaction. However, what is lacking is sufficient support for discovery, brokering, composition, and mediation of Web Services while retaining security and trust. What is needed is the possibility for the dynamic brokering of Web services, an architecture in which Web services can suitably be advertised, discovered, and composed and the usage of the services can be negotiated, billed, managed, and monitored.

The industrial session was occupied with researchers from Oracle, HP and HP Labs, and Chutney Technologies. They presented technology and systems for B2B integration, for determining actual network usage for next generations pricing models of ISP's, for accelerating the dynamic content generation of Web pages by a proxy-based approach, and for clustering Web accelerators.

Again, not only the actual topics but a lively research community with broad research background attending the workshop contributed to what a workshop should be, the platform for exchanging, discussing, and sharing research ideas.

The community decided that, as the workshop has now reached some size with regard to the number of submissions, paper quality and interest in the workshop, they will hold it as a conference, the Conference on E-Commerce (CEC) from 2003 on.

Keynotes

Web Services and XML Good News: The Difficult Issues Are Still Open



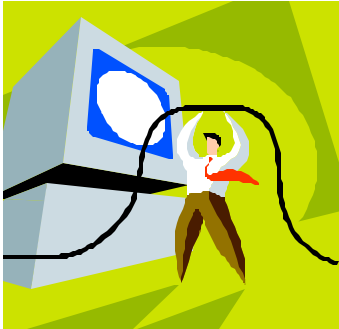
Matthieu Devin

Director, Oracle9i Application Server Architecture, Oracle

XML has taken by storm the software industry and the computer science research community, giving rise to a flurry of new technologies such as XML databases, Web Services, and workflow languages. The adoption rate of some of these technologies is spectacular. But have we indeed made significant progress by gluing XML syntax on top of old mechanisms? Have we been blinded by XML tags to the point of forgetting that “syntax” is just the first step towards “semantics”? We look at some of the recent XML based technologies, try to identify their benefits, and highlight some of the many related research and engineering issues still unresolved.

Keynotes

Web Services: Enabling Business Integration and Collaboration



John Sayah

Program Director, Advanced Projects, IBM Software Group

The emergence of Web Services represents a significant advance in the continuing evolution of e-business. Web services are self-contained, modular business process applications, based on open standards, that enables an integration model for facilitating program-to-program interaction. What does this mean? For the first time, Business-to-Business applications have a flexible way to discover and compose services into powerful business solutions. It is a step stone technology that supports the vision of Dynamic ebusiness—the dynamic adaptation of business process, collaboration, and choreography leading to the realization of innovative business strategies, offerings and relationships.

Keynotes

E-nabling the E-conomy



Alan H. Karp

Principal Scientist, Hewlett-Packard Laboratories

The world is moving from an economy based on the interactions of people to an E-conomy characterized by the interactions of software services. This change promises enormous gains in productivity and substantial reductions in process times. In the E-conomy, people will decide what needs to be done, and software will determine the best way to do it. The emerging web services standards are key to getting us there. Today, getting services from different organizations to interact over the Internet is difficult, special-case work. Part of the difficulty is that each provider addresses a common set of problems in a proprietary way. Using the standards defined by the web services effort makes it easier to produce, operate, and use compositions of services. Web services standards will allow us to think of all applications as e-services that we can assemble on the fly to solve our problems. In this talk, I'll discuss the components of the economy, the interaction among these components, and where the evolving web services standards fit in.

Call for Participation

The purpose of the TFEC Newsletter is to provide dated information on Electronic Commerce activities in a timely manner. Also, we will accept short articles written by TFEC members. The plan is to initially "publish" four issues a year. The editor is soliciting items pertaining to Electronic Commerce for the following categories:

- Announcements about TFEC Activities and Achievements
- Conference Announcements
- Call for Papers - Conferences and Journals
- New Publication Announcements on Electronic Commerce
- Special Issues on Electronic Commerce in Journals
- Workshops, Tutorials and Book Announcements
- New Web Sites and Research Group on Electronic Commerce
- **Short Articles on the latest development of Electronic Commerce (8 pages)**

Please send items to Dr. [Liang-Jie Zhang](mailto:zhanglj@ieee.org) at zhanglj@ieee.org.

Call for Paper

IEEE Conference on E-Commerce (CEC'03), formerly known as **WECWIS** (International Workshop on E-Commerce and Web-based Information Systems), is an international forum for business and software engineering researchers to exchange information regarding advancements in the state of the art and practice of e-commerce and Web-based information systems, as well as to identify the emerging research topics and define the future of E-Commerce and service computing.

Submissions:

Full papers must not exceed 20 pages printed using at least 11-point type and double spacing. All papers should be in Adobe portable document format (PDF) or PostScript format. The paper should have a cover page, which includes a 200-word abstract, a list of keywords, and author's e-mail address. Authors should submit a full paper via electronic submission to cec03@us.ibm.com. All papers selected for this conference are peer-reviewed and will be published in the regular conference proceedings with CD-ROM version published by the IEEE Computer Society Press. The best papers presented in the conference will be chosen for a special issue of IEEE Computer magazine (<http://tab.computer.org/tfec/webservices/index.html>) or other journals.

Important Dates:

- **January 20, 2003:** Submission of papers (by 12 midnight, EST)
- March 17, 2003: Notification of acceptance
- April 17, 2003: Camera-Ready copy of accepted papers due
- June 25, 2003: Conference starts!

IEEE TFEC Membership

The TFEC is always looking for members and volunteers to promote its activities. The TFEC *membership is FREE* and is open to all irrespective of whether you are IEEE/Computer Society member or not. However, IEEE or CS members enjoy special privileges including: discount on registration fee for TFEC sponsored events, right to vote, receive any printed newsletter. If you are not a member of IEEE or CS, It's time to become a [member](#).

How to become TFEC member ?

- **Online-Option (Please select Task Force- E-Commerce):**

<https://newton.computer.org/correspo.nsf/signup?OpenForm>

- **Second Option:** All you need to do is fill the **Application Form (Text Format)** and email OR print it out and fax/post directly to IEEE CS, USA as described in the application.

Any questions, please contact the following TFEC Co-Chairs:

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Item of Interest

<http://www.cs.rmit.edu.au/fedconf/tutorial.html>