Newsletter

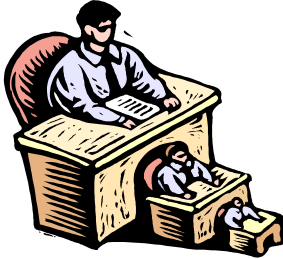*IEEE Task Force on Electronic Commerce*

TFEC newsletter

Editorial Board:

- Editor: Liang-Jie Zhang
- Associate Editor: Zongwei Luo

IEEE TFEC newsletter

- serves the TFEC members
- shares information among TFEC members
- promote the TFEC community

Executive Summaries

Information systems and their application play a major role in today's business. Besides the introduction of new technologies to streamline processes within companies, Electronic Commerce over the Internet has become a major trend. Though only a few years old, it has the potential to radically alter economic activities. Electronic payment technologies, electronic procurement and electronic markets are only a few of the challenges that future businesses will have to meet. The current success of Electronic Commerce is based on the fundamental work done in earlier years in various disciplines. EDI, WWW, cryptography, databases and distributed object standards form a mix of technologies and standards for the development of Electronic Commerce applications. This means that Electronic Commerce does not describe a single new technology, but it is a patchwork of tools and techniques combining contributions of various disciplines. Together they should enable the fair exchange of goods and services over the Internet.

While computer and engineering sciences have laid the foundation for Electronic Commerce, Electronic Commerce technologies are no longer simple efficiency tools that automate various types of transactions.
By equipping economic agents with tools to search, negotiate and transact on-line and real time, various applications of Electronic Commerce technologies promise an unprecedented opportunity to rethink fundamental assumptions about markets and economic efficacy through electronic markets and open a whole range of new research questions.

IEEE TFEC

"Electronic Commerce technologies are no longer simple efficiency tools …"

Executive summaries (cont.)

The IEEE Computer Society has been sensitive to these new developments of computer science. Since 1998, we have successfully organized the Workshop on Dependable and Real-Time E-Commerce Systems (DARE'98) and the International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems (WECWIS) in 1999, 2000 and 2001. The conference proceedings have been published by IEEE Computer Society. Thus the need is felt for a forum where all scientists, engineers, practitioners, and the like, working in this area can express themselves with publications in conferences and with exchanges of ideas of any kind. It is felt that the IEEE Computer Society is the ideal organization to support this kind of activity, as it has already done so.

The **Task Force on Electronic Commerce (TFEC)** will act as an international forum to promote E-Commerce research and education, and participate in setting up technical standards in this area. Issues related to the design, analysis and implementation of E-Commerce systems and solutions are of interest.

These include design and analysis of distributed architectures and enabling technologies (e.g. **Autonomic computing, Grid, Web Services**, etc.) and application development on E-Commerce system.

IEEE TFEC

Executive summaries (cont.)

The Task Force on Electronic Commerce (TFEC) plans to sponsor professional meetings, publish newsletters and other documents, set guidelines for educational programs, as well as help co-ordinate academic, funding agency, and industry activities in the above areas. The TFEC organizes annual conferences. In addition, TFEC publishes a quarterly newsletter to help IEEE/Computer Society members keep abreast of the events occurring within this field.
The International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems (WECWIS'2002) was sponsored by the TFEC.

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WECWIS 2002

4th IEEE International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems (WECWIS 2002) was held on 26–28 June 2002 in Newport Beach, CA. 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. The program features a variety of papers, focusing on topics ranging from Web services, to Internet infrastructures, auctions, and pricing.

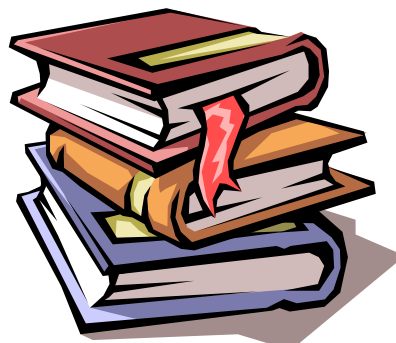## Proceedings of WECWIS 2002 is available!

Proceeding contents:

WebServices 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 purchase a copy of the proceedings, please go the URL:

http://computer.org/CSPRESS/CATALOG/pr01567.htm

IEEE Conference on EC 2003

June 25-27 2003,
Newport Beach,
California, USA,

Sponsored by the IEEE
Task Force on Electronic
Commerce
URL:
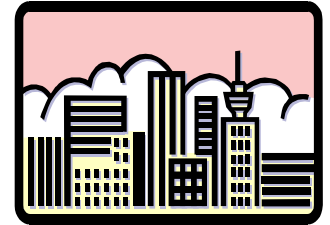http://tab.computer.org/tf
ec/cec03

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 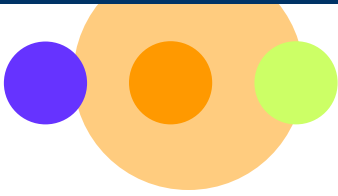and Web-based information systems, as well as to identify the emerging research topics and define the future of E-Commerce and service computing.

In this conference, we are interested in the infrastructure issues and enabling technologies to facilitate e-commerce and Web-based information systems. These include the design and analysis of distributed architectures and emerging technologies (e.g. Autonomic computing, Grid, Web Services, etc.) for developing advanced E-Commerce systems.

EC 2003

SCI 2002

 Web Services and Grid Computing at SCI'2002

A typical usage of Web Services is Dynamic e-business integration, which is the dynamic adaptation of business processes and associated systems to support changing business scenarios. The Grid Computing is the key to advancing e-business into the future and the next step in the evolution of the Internet towards a true computing platform. In general, companies offering grid-based Web Service will tap new revenue streams as valuable data created on a grid system becomes information that can be sold via Web Service to partners or subscribers...

 July 14-18, 2002, Orlando, Florida (USA)

http://www.iiis.org/sci2002/

Session Chair: Dr. Jen-Yao Chung and Dr. Liang-Jie Zhang

SCI 2002

IC'2002

Session Chair: Dr. Liang-Jie Zhang

Web Services Computing at IC'02

The technical format ensures each of these self-contained business services is an application that will easily integrate with other services to create a complete business process. This interoperability allows businesses to dynamically publish, discover, and aggregate a range of Web services through the Internet to more easily create innovative products, business processes and value chains...

June 24 - 27, 2002, Las Vegas, Nevada, USA

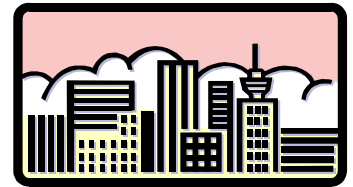http://www.uet.e-technik.uni-kassel.de/~IC02

IC 2002

MSE' 2002

Web Services and Multimedia Track at MSE'2002

The typical usages of Web Services for multimedia are media content management, media streaming and interactive application development. With the advancement of wireless information appliances, Web Services interfaces provide a means to enable the content or service can be created once and accessed by multiple SOAP-enabled devices such as Wireless phones, Palm devices, set-top boxes as well as regular Web browsers. This special track at MSE'2002 is the first attempt to provide an opportunity for researchers and engineers to exchange ideas regarding Multimedia and emerging Web Services technology in the world ...

December 11-13, 2002, Newport Beach, California, USA
http://mse2002.ece.uci.edu/

Track Chair: Dr. Liang-Jie Zhang

MSE 2002

TFEC Conference

CEC'03 New

IEEE Conference on E-Commerce (CEC'03)
June 2003, Newport Beach, California, USA
Sponsored by the IEEE Task Force on Electronic Commerce
URL:
http://tab.computer.org/tfec/cec03

Conferences interesting to TFEC members

WWW'2003   November 15, 2002

WWW2003 CALL FOR PAPERS
The Twelfth International World Wide Web Conference,
May 20-24, 2003, Budapest, Hungary

http://www2003.org/cfp.htm

Paper submission deadline:

SAC 2003

SAC 2003 CALL FOR PAPERS
E-COMMERCE TECHNOLOGIES
(http://www.cse.buffalo.edu/~sbraynov/SAC.htm)

Special Track at The 18th ACM Symposium on Applied Computing (SAC 2003)
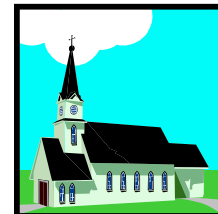March 9 to 12, 2003, Melbourne, Florida, USA

W3C

W3C, through the following activities, is committed to key factors for success in the evolution of Electronic Commerce. Major W3C common specifications for the Web in areas such as network protocols, graphical user interface, remain the basis of Electronic Commerce.

The W3C XML Signature provides a mechanism for signing documents and metadata in order to establish who made the statement. The W3C XML Encryption specifies a process for encrypting/decrypting digital content and an XML syntax used to represent the encrypted content and information that enables an intended recipient to decrypt it.

The W3C XML Protocol goal is to develop technologies which allow two or more peers to communicate in a distributed environment, using XML as its encapsulation language, allowing automated negotiations. The search is on for common ground that can meet the heavyweight, commercial demands of business to business e-commerce systems, and at the same time satisfy aesthetic requirements for a lightweight, simple network protocol for distributed applications.

W3C

W3C cont.

The Semantic Web is a vision: the idea of having data on the web defined and linked in a way that it can be used by machines not just for display purposes, but for automation, integration and reuse of data across various applications. Metadata provides a means to make statements and create machine-readable statements. The Platform for Privacy Preferences Project (P3P) provides communication about data privacy practices between consumers and merchant sites on the Web as well as enhanced user control over the use and disclosure of personal information. The Micropayment initiative specifies how to provide in a Web page all the information necessary to initialize a micropayment and transfer this information to the wallet for processing.

OMG

The Object Management Group (OMG) is an open membership, not-for-profit consortium that produces and maintains computer industry specifications for interoperable enterprise applications.

The flagship specification is the multi-platform Model Driven Architecture (MDA), recently underway but already well known in the industry. It is based on the modeling specifications the MOF, the UML, XMI, and CWM. OMG's own middleware platform is CORBA, which includes the Interface Definition Language OMG IDL, and protocol IIOP. The Object Management Architecture (OMA) defines standard services that will carry over into MDA work shortly. OMG Task Forces standardize Domain Facilities in industries such as healthcare, manufacturing, telecommunications, and others.

All of the specifications may be downloaded without charge from the website. Products implementing OMG specifications are available from hundreds of sources. The success-stories website documents hundreds of mission-critical CORBA applications in use *today*. And, these companies and organizations have committed to CORBA as their interoperability architecture.

OMG

EBXML, OASIS, UN/CEFACT

Development of the ebXML specifications is an on-going effort sponsored by OASIS and UN/CEFACT. Technical committees for the ebXML Registry, Messaging, Collaborative Partner, and Implementation are hosted by OASIS, and Business Process and Core Component work continues at UN/CEFACT.

ENABLING A GLOBAL ELECTRONIC MARKET

ebXML enables enterprises of any size, in any location to meet and conduct business through the exchange of XML-based messages.

OASIS is an international, not-for-profit consortium that designs and develops industry standard specifications for interoperability based on XML.

Global Grid Forum

The Global Grid Forum (**GGF**) is a community-initiated forum of individual researchers and practitioners working on distributed computing, or "grid" technologies. GGF is the result of a merger of the *Grid Forum*, the *eGrid European Grid Forum*, and the Grid community in Asia-Pacific.

GGF Mission
The **GGF mission** is

> *to focus on the promotion and development of Grid technologies and applications via the development and documentation of "best practices," implementation guidelines, and standards with an emphasis on "rough consensus and running code".*

GGF Goals

To facilitate and support the creation and development of regional and global computational grids that will provide to the scientific community, industry, government and the public at large dependable, consistent, pervasive and inexpensive access to high-end computational capabilities
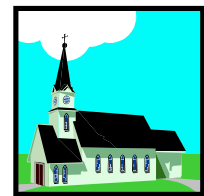
To address architecture, infrastructure, standards and other technical requirements for computational grids and to facilitate and find solutions to obstacles inhibiting the creation of these grids

To educate the scientific community, industry, government and the public regarding the technologies involved in, and potential uses and benefits of, computational grids

To facilitate the application of grid technologies within educational, research, governmental, healthcare and other industries

To provide a forum for exploration of computational grid technologies, applications and opportunities, and to stimulate collaboration among the scientific community, industry, government and the public regarding the creation, development and use of computational grids and,

To exercise all powers conferred upon corporations formed under the Illinois General Not-For-Profit Corporation Act in order to accomplish its charitable, scientific and educational purposes and to take other actions necessary, advisable or convenient to carry out any or all of these purposes.

Grid Forum

Call for Contribution

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.

Items in demand!

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)

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 your 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](#).

The TFEC's technical areas (but not limited to) are listed below.

- Agent-mediated e-commerce
- Ad-hoc collaboration technology
- Auction and negotiation technology
- Automated shopping and trading

Autonomic Computing
- Business process reengineering for e-commerce
- Case studies in electronic commerce
- Consumer protection in electronic commerce
- Costs and benefit aspects
- Commerce-oriented middleware services
- Competitive strategies
- Computational markets for information services
- Content creation & management
- Economic analysis
- E-commerce education
- E-sourcing
- E-market and exchange infrastructures

Grid Computing
- Information economies
- Innovative business models
- Intellectual property license management

TFEC Membership

Technical areas

- Languages for describing goods, services, and contracts
- Legal issues
- Marketing and advertising technology
- Online transactions for community and non-profit services
- Payment and exchange protocols
- Performance evaluation and testing of e-commerce systems
- Privacy issues
- Recommendation and referral systems
- Reputation and trust mechanisms and issues
- Security and cryptographic issues, methods and applications
- Shopping tools

- Social, organizational and cross-cultural implications of new technologies
- Software requirements and architectures for e-commerce
- Standards for electronic commerce
- Supply chains, coalitions, and virtual enterprises
- User interface support for e-commerce
- Visualization of e-commerce data and systems

Web services

"TFEC membership is FREE."

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