



Services Computing

September 22, 2004

Volume 1, Number 3

*The Official
Newsletter of the
IEEE Computer
Society's Technical
Steering
Committee for
Services
Computing
(TSC-SC)*

Contents

- Highlights of TSC-SC Activities and Achievements
- IEEE ICWS 2004 Summary Report
- Call for Papers (IEEE ICWS & SCC 2005, JWSR, Newsletter)

IEEE Online Community:: Services Computing Forum
<https://www.ieeecommunities.org/services>

Highlights of TSC-SC Activities and Achievements

The IEEE Computer Society's Technical Steering Committee for Services Computing (TSC-SC) is a multi-disciplinary group whose purpose is to advance and coordinate work in the field of Services Computing carried out throughout the IEEE in scientific, standard, literary and educational areas. TSC-SC supports the theory, design, and development of Services Computing and its scientific, engineering, and industrial applications.

Since the last issue of our newsletter was published, TSC-SC has successfully organized two IEEE international conferences focusing on Web services: IEEE ICWS 2004 and IEEE SCC 2004:

- **IEEE ICWS 2004** (<http://conferences.computer.org/icws/2004>)

As one of the most prestigious academic conferences in the field of Web services, 2004 IEEE International Conference on Web Services (ICWS 2004) was held at Westin Horton Plaza in San Diego, California, July 6-9, 2004. ICWS 2004 attracted about 250 registered participants from 22 countries and regions.

- **IEEE SCC 2004** (<http://conferences.computer.org/scc/2004>)

As the extended event of the 2004 IEEE International Conference on Web Services (ICWS 2004), 2004 IEEE International Conference on Services Computing (SCC 2004) was held at Jian Gong Jin Jiang Hotel in Shanghai, China, September 15-18, 2004. SCC 2004 attracted about 150 registered participants from 17 countries and regions.

TSC-SC Chair:

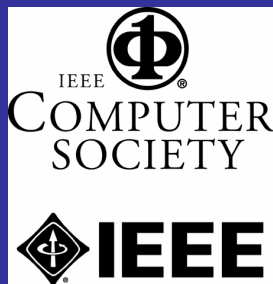
Liang-Jie (LJ)
Zhang, IBM T.J.
Watson Research
Center, USA

**TSC-SC
Newsletter
Editor:**

Jia Zhang,
Northern Illinois
University, USA

**TSC-SC
Newsletter
Associate Editor:**

Haifeng Xi, IBM T.J.
Watson Research
Center, USA



**IEEE Computer
Society**

**Technical
Steering
Committee for
Services
Computing**

E-mail:

tsc-newsletter @
yahoogroups.com

**We're on the
Web!**

<http://tab.computer.org/tsc>

IEEE ICWS 2004 Summary Report

Bridging the gap between business & IT using Web services

2004 IEEE International Conference on Web Services (ICWS 2004)

Web services are network-based application components using standard interface description languages and uniform communication protocols, and they are quickly emerging as the most important building blocks for the service oriented architecture (SOA). Typical industry solution areas of Web services are business-to-business integration, business process integration and management, content management, e-sourcing, composite Web services creation, design collaboration for computer engineering, multimedia communication, digital TV, and interactive Web solutions. Grid computing has also started to leverage Web services to define standard interfaces for business services and generic reusable Grid resources.

The 2004 IEEE International Conference on Web Services (ICWS 2004, <http://conferences.computer.org/icws/2004>) was the second annual conference focusing on Web services. ICWS is a forum for researchers and industry practitioners to exchange information regarding advancements in the state of the art and practice of Web services, as well as to identify the emerging research topics and define the future of Web services computing. ICWS 2004 was sponsored by IEEE Computer Society's Technical Committee for Services Computing, which is the first professional community that concentrates on SOA and Web services under the IEEE umbrella.

As one of the most prestigious academic conferences in the field of Web services, ICWS 2004 was held at Westin Horton Plaza in San Diego, California, July 6-9, 2004. "ICWS 2004 was an extremely successful conference that brought industry experts and academic researchers together to exchange the latest information and future directions of Web services and its applications", Dr. Liang-Jie (LJ) Zhang, General Chair of IEEE ICWS 2004 and a research staff member at IBM T. J. Watson Research Center, told the press. ICWS 2004 attracted about 250 registered participants from 22 countries and regions (USA, UK, France, China, Spain, Germany, Austria, Italy, Japan, Canada, Singapore, Australia, India, Korea, Israel, Turkey, Ireland, Norway, Sweden, Brazil, Belgium, Hong Kong, and Taiwan).

ICWS is a platform where researchers from both academia and industry get together once a year to exchange ideas and technologies for promoting and advancing research and development in Web services. As the world heads towards pervasive and Web services enabled computing, there is an increasing need for Computer Science, Information Technology, and Business Management communities to work together to address issues related to the design, usage, and business of Web services.

With the leadership of Program Co-Chairs Prof. Hemant Jain and Ling Liu, this year's ICWS had an extremely strong technical program. A total of 230 papers were received by ICWS 2004 (a record by far), and submissions came from over 15 countries and regions. All papers went through a thorough review process. We were fortunate to have about 100 program committee members who assisted us by giving very detailed and timely reviews. At least two reviewers reviewed each paper. We had significant online PC discussion for both controversies and final decisions. After extensive discussions, only 66 papers were accepted for full paper publication and presentation.

A key aspect of ICWS is to bring the worlds of researchers from both Computer Science and Business Management together in a single, high-quality forum. Among the accepted papers, there are Computer Science papers, Management Information System and Business papers, and what we call "bridge" papers as they bridge the gap between the two fields. In addition, we offered a strong industry track with 19 papers from researchers and practitioners working in the frontier of Web services in industry. Furthermore, this year's technical program also featured 16 short papers in which authors gave brief descriptions of their research. Finally, the ICWS 2004 technical program hosted 5 tutorials, reviewing the state of art in five different areas related to advances in Web services, and three poster paper sessions chaired by Prof. Graciela Gonzalez. All the poster session papers were accepted from a separate submission channel enabling work-in-progress results to be shared and disseminated at the conference.

Five distinguished experts and executives were invited to deliver keynote speeches at IEEE ICWS 2004. Dr. Donald F. Ferguson, IBM Fellow and Chief Architect of IBM Software Group delivered the opening keynote speech on "Convergence of Web Services, Grid Services and Business Processes". Sharon Nunes, Vice President of IBM Research delivered a keynote speech on "Extending the Innovation Ecosystem". Dr. Ephraim Feig, Chief Technology Officer and Chief Marketing Officer at Kintera, Inc., gave a speech on "Going Public with Software-as-a-Service". Jay M. Tenenbaum, Chairman of CommerceNet & Director of Webify Solutions and Medstory Inc., presented a vision on "Business Services Networks". Dr. Umeshwar Dayal, HP Fellow and Director of Intelligent Enterprise Technologies Laboratory at Hewlett-Packard Labs, presented "Managing the Intelligent Enterprise".

In addition, four great panels were coordinated by Prof. Calton Pu from Georgia Tech. Don Ferguson from IBM, Dan Fay from Microsoft Research, and Jerry Rolia from HP Lab hosted a panel discussion on "The Future of Service-Based Computing: The big picture and (research) strategies of big IT companies". Ephraim Feig from Kintera, Hamid Ahmadi (Vice President of Technology and CTO, IBM Global Communications Sector) from IBM, Terry Mohn (Chief Architect Web Services) from Sempra Energy, and David Linthicum (CTO) from Grand Central Communications hosted a panel discussion on "Innovative applications using Web services". Dejan Milojicic from HP Labs, Munindar Singh from North Carolina State University, Opher Etzion from IBM Haifa Research Lab, and Massimo Paolucci from the Robotics Institute at Carnegie-Mellon University organized a panel discussion on "Quality of Service Management in Service Grids and Grid Services". Bhavani Thuraisingham from National Science Foundation, Andrew Nash from RSA Security, George Yee from National Research Council Canada, and J. Jon Miller from Internet Security Systems hosted a panel discussion on "Security and Privacy in Service-Based Computing".

As the Tutorial Chair, Prof. J. Leon Zhao helped organize 5 tutorials for ICWS 2004. During the four-day conference, Dr. Ali Arsanjani (Chief Architect, SOA and Web services Center of Excellence) from IBM Global Services, Prof. Amit Sheth from University of Georgia, Dr. Massimo Paolucci from Carnegie Mellon University, Dr. Arun Jagatheesan from the San Diego Supercomputer Center at University of California at San Diego, and Dr. Opher Etzion from IBM Research Lab in Haifa gave 5 excellent tutorials.

IBM Research sponsored the Best Student Paper Award and the Student Forum at ICWS 2004. The Best Paper award was presented to Christian Werner, Carsten Buschmann, and Stefan Fischer from Technical University Braunschweig, Germany. The Best Student Paper was given to Galen Swint and Calton Pu from Georgia Tech, USA. Best Paper Runners-up awards were presented to Jinghai Rao and Peep Kungas from Norwegian University of Science and Technology and Mihhail Matskin from Royal Institute of Technology, Sweden, and to Gwen Salaun, Lucas Bordeaux, Marco Schaefer from University of Roma, Italy. Most presenters of the high quality papers at ICWS 2004 will be invited to submit enhanced versions to the International Journal of Web Services Research (JWSR, <http://www.idea-group.com/journals/details.asp?id=4138>), Information Technology and Management (<http://www.kluweronline.com/issn/1385-951X>), International Journal of Business Process Integration and Management (IJBPI, <https://www.inderscience.com/browse/index.php?journalID=115>), and International Journal of Grid and Utility Computing (IJGUC, <https://www.inderscience.com/browse/index.php?journalID=108>).

Finally, as you probably have noticed, the success of ICWS 2004 should also be attributed to its comprehensive registration system, professional web site and broad distribution network, which were managed by Prof. Jia Zhang and Prof. Patrick C.K. Hung. Along with the whole organizing committee; we would like to express our appreciation for your great support of ICWS 2004. With strong support from the IEEE, the Services Computing Forum has been created to allow us to interact with each other online in addition to our face-to-face conferences.

Prof. Carl K. Chang, 2004 President of IEEE Computer Society, will join Dr. Liang-Jie (LJ) Zhang to serve as the General Co-Chair to help organize next year conference. We hope ICWS 2005 (<http://conferences.computer.org/icws/2005>) will be more exciting and promising. We are sincerely looking forward to seeing you in Orlando (Florida, USA) in July 2005.

Call for Papers

I. IEEE Joint Conference on SERVICES

IEEE International Conference on Web Services
(ICWS 2005)
IEEE International Conference on Services Computing
(SCC 2005)



Conference Web sites:
<http://conferences.computer.org/icws>
<http://conferences.computer.org/scc>

July 12-15, 2005
Orlando, Florida, USA

ICWS 2005 & SCC 2005 GENERAL CHAIRS

- Prof. Carl K. Chang, Chair of Department of Computer Science, Iowa State University and 2004 President of IEEE Computer Society
- Dr. Liang-Jie (LJ) Zhang, Research Staff Member at IBM T.J. Watson Research Center and Chair of IEEE Technical Steering Committee for Services Computing (zhanglj@ieee.org)



Carl K. Chang



Liang-Jie (LJ) Zhang

SCC 2005 Call for Papers

Services now account for more than half of the U.S. economy. Services Computing, as a new cross discipline, addresses how to enable IT technology to help people perform business services more efficiently and effectively. As we can see, Services Computing currently shapes the processes of business modeling, business consulting, solution creation, service delivery, and software architecture design, development and deployment.

The 2005 IEEE International Conference on Services Computing (SCC 2005) aims to the topics of bridging the gap between Business Services and IT Services with a new ground breaking technology suite that includes Web services and service-oriented architecture (SOA), business process integration and performance management, utility/grid computing and autonomic computing. It is sponsored by the IEEE Computer Society Technical Steering Committee for Services Computing (TSC-SC) and will be co-located with the 2005 IEEE International Conference on Web Services (ICWS 2005). The theme of this joint IEEE conference on SERVICES is "*Bridge the Gap between Business Services and IT Services*".

SCC 2004 was held in Shanghai, China, September 15-18 2004. A total of 330 papers were submitted to SCC 2004. Submissions were from over 30 countries and regions. 37 were accepted as full research papers, 9 were accepted as short papers, and 50 were accepted as special session papers.

SCC 2005 has the following major research tracks: Foundations of Services Computing, Service-Oriented Architecture (SOA), Grid/Utility Computing, and Business Performance Management Services and Business Integration.

SCOPE: Topics of interest include, but are not limited to, the following:

Foundations of Services Computing

- Services science
- Services Modeling
- Service-oriented business consulting methodology and utilities
- Services delivery
- Services value chain and innovation lifecycle

Service-Oriented Architecture (SOA)

- Service-Oriented Architecture (SOA)
- SOA Solution Stack
- SOA Industry Standards
- SOA Industry Solutions

Business Performance Management Services and Business Integration

- Enterprise Modeling
- Business process modeling, transformation and integration
- Business performance management
- Software architecture design, development and deployment (software as a service)
- Application integration services (e.g. Enterprise Service Bus)
- Service Level Automation and Orchestration
- Industry solution patterns

Grid/Utility Computing

- Grid Computing
- Utility Computing
- Utility Business Services

ICWS 2005 Call for Papers

The 2005 IEEE International Conference on Web Services (ICWS 2005) is the THIRD year of ICWS focusing on Web Services. The long-term goal of ICWS is to build up a reputable and respectable conference for the international community. ICWS is a forum for researchers and industry practitioners to exchange information regarding advancements in the state of the art and practice of Web Services, as well as to identify the emerging research topics and define the future of Web Services computing. ICWS 2005 is sponsored by IEEE Computer Society Technical Steering Committee (a.k.a. Technical Community) for Services Computing (TSC-SC) and will be co-located with the 2005 IEEE International Conference on Services Computing (SCC 2005). The theme of this joint IEEE conference on SERVICES is "*Bridge the Gap between Business Services and IT Services*".

ICWS 2004 was held in San Diego, California, July 6-9, 2004. A total of 230 papers were submitted to ICWS in 2004, 66 were accepted as full research papers. ICWS 2004 had 14 research sessions, 4 industry sessions, 5 tutorials, 4 panels, and 3 poster paper sessions. ICWS 2004 had attracted about 250 registered participants from 22 countries and regions. ICWS 2003 and ICWS 2004 have proven to be an excellent catalyst for research & collaboration, and we fully expect that ICWS 2005 will continue this trend.

The program of ICWS 2005 will continue to feature research papers with a wide range of topics, focusing on difference aspects of IT services. Some of the topics include Web Services specifications and enhancements, Web Services discovery, Web Services security, Web Services based applications, Web Services standards and technologies, Web Services applications and solutions, Web Services realizations, semantic Web Services, and other emerging technologies or solutions. All accepted papers will be published in the conference proceedings in hardcopy and on-line version by the IEEE Computer Society. The full version of the selected best papers published in the ICWS 2005 will be invited to publication in the [International Journal of Web Services Research \(JWSR\)](#) (by Idea Group) and possibly other related journals. The ICWS 2005 Proceedings and JWSR have both been selected to be included in [EI Compendex](#).

SCOPE: Topics of interest include, but are not limited to, the following:

- Mathematical foundations of Web Services
- Data management issues in Web Services
- Frameworks for building Web Service applications
- Composite Web Service creation and enabling infrastructures (e.g., workflow technology)
- Web Service composition, orchestration, and choreography
- Web Services modeling & design
- Web Services discovery & selection
- Semantic Web, ontologies, and Web Services
- Dynamic invocation mechanisms for Web Services
- Contractual issues between provider and consumer of Web Services
- Version management in Web Services
- Customization of Web Services
- Web Services architecture
- Web Services negotiation & agreement
- UDDI and SOAP enhancements
- Web Services and process management
- Trust, security & privacy in Web Services

- Scalability and performance of Web Services
- Web Services standards and technologies
- Automatic computing for Web Services infrastructure
- Wireless web, mobility, and Web Services
- Web Service based Grid Computing and peer to peer computing
- Web Services based applications for e-commerce
- Quality of service for Web Services
- Multimedia applications using Web Services
- Economics and pricing models of utility computing and Web Services
- Resource management of Web Services
- Solution management for Web Services
- Adoption of Web Services by organizations
- Case studies on Web Services based applications
- Analysis, testing, and verification of Web Services

Submission Of Papers

Authors are invited to submit original, unpublished research papers that are not being considered in another forum. Manuscripts will be limited to 8-10 (IEEE Proceeding style) pages and be printed on 10 or 12 size font. Electronic submission of manuscripts (in PDF or Word format) is required. Detailed Instructions for electronic paper submission, panel proposals, tutorial proposals, and review process can be found from the conference web sites.

Important Dates

Paper Submission due: **1/31/2005**

Decision Notification: **3/28/2005**

Camera-Ready due: **4/15/2005**

IEEE ICWS 2005 & SCC 2005: **7/12-15, 2005**

II. International Journal of Web Services Research (JWSR)



"The International Journal of Web Services Research (JWSR) is the first refereed, international publication featuring only the latest research findings and industry solutions dealing with all aspects of Web services technology. The overall scope of this journal will cover the advancements in the state of the art, standards, and practices of Web services, as well as to identify the emerging research topics and define the future of Services computing, including Web services on Grid computing, Web services on multimedia, Web services on communication, etc."

To date JWSR has published four issues in 2004. In 2005, JWSR will seek to raise important questions, highlight major events and influences that shape the academia and industry, and record the innovative ideas and experiences in the domain of Web services. (<http://www.idea-group.com/journals/details.asp?id=4138>)

III. Call for Information for TSC-SC Newsletter

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

- Announcements about TSC-SC activities and achievements
- Conference announcements
- Call for papers - conferences and journals
- New publication announcements on Services Computing
- Special issues on Services Computing in journals
- Workshops, tutorials and book announcements
- New Web sites and research group on Services Computing
- Short articles on the latest development of Services Computing (8 pages)