SERVICES 2012 Keynote Sessions

IEEE CS Cloud Computing Initiative Launch

Sorel Reisman, Ph.D., Professor
IEEE Computer Society President, 2011

Dr. Sorel Reisman is Managing Director of the international, higher education consortium MERLOT.ORG, and Professor of Information Systems at California State University Fullerton. He has held senior management positions at IBM (Canada and US), Toshiba (US), and EMI (UK). He is a Senior IEEE member, was Vice President of the Computer Society Publications Board, and Vice President of the Electronic Products and Services Board. Dr. Reisman has presented/published 50+ articles and the books Multimedia Computing: Preparing for the 21st Century, and Electronic Learning Communities – Current Issues and Best Practices. Reisman received his PhD in Computer Applications from the University of Toronto.

Keynote Panel: Service Ecosystems — Computing from the Human and Organizational Angles

Moderator: Munindar P. Singh, North Carolina State University, USA
Panelists: Aditya K. Ghose, University of Wollongong, Australia
Ling Liu, Georgia Institute of Technology, USA
Michael Maximilien, IBM Almaden Research Center, USA
Hamid Reza Motahari Nezhad, HP Labs, USA
Manish Parashar, Rutgers University, USA

ABSTRACT: The expansion of service and cloud computing promises to facilitate the expansion of service ecosystems, wherein multiple services coexist, cooperate, and compete with each other. Of particular interest are business services, realized through a combination of technical services and human services. The business services represent independent parties; thus, the service ecosystems raise the challenges of how independent parties may collaborate and form organizations, how cross-organizational collaborations may be realized via high-level protocols, how parties may intelligently select one another, how ad hoc processes may be realized and adapted, how humans may both exploit and help realize such processes. Service ecosystems potentially involve challenges of trust, economics, normative systems, and social and emotional relationships. This panel will involve a free-ranging discussion on a variety of topics pertaining to service ecosystems, including theory and practice.

MODERATOR:
Dr. Munindar P. Singh (Chair) is a professor in the department of computer science at North Carolina State University. Munindar's research interests include multiagent systems and service-oriented computing, with a special emphasis on the challenges of contracts, governance, and trust in large-scale open environments. Munindar's research has been recognized with awards and sponsorship by the Army Research Laboratory, the Army Research Office, Cisco Systems, DARPA, Ericsson, IBM, Intel, NSF, Ocean Observatories Initiative, and Xerox. Munindar is a Fellow of the IEEE. Munindar is a former editor-in-chief of IEEE Internet Computing. He serves on a number of editorial boards of journals. His home page is http://www.csc.ncsu.edu/faculty/mpsingh/.

About the Panelists:
Dr. Aditya K. Ghose is Professor of Computer Science at the School of Computer Science at the University of Wollongong and Director of the Decision Systems Lab. He holds PhD degree in CS from the University of Alberta, Canada. Prof. Ghose is a Research Leader in the Australian Cooperative Research Centre for Smart Services, Co-Director of the Centre for Oncology Informatics at the Illawarra Health and Medical Research Institute, Co-Leader of the University of Wollongong Carbon-Centric Computing Initiative and Co-Convenor of the Australian Computer Society NSW SIG on Green ICT. He is also Vice-President of CORE, Australia's apex body for computing academics. His home page is http://www.uow.edu.au/~aditya/.

Dr. Ling Liu is a full Professor in the School of Computer Science at Georgia Institute of Technology. She directs the research programs in Distributed Data Intensive Systems Lab (DiSL). She has published over 300 International journal and conference articles in the areas of databases, distributed systems, and Internet Computing. Prof. Liu is a recipient of 2012 IEEE CS Technical Achievement Award. She has served as general chair and PC chair of several IEEE and ACM conferences in data engineering and distributed computing fields and served on editorial board of over a dozen international journals: Prof. Liu is Associate Editor-in-Chief of IEEE Transactions on Service Computing (TSC). Dr. Liu's current research is primarily
Keynote: High Performance Computing in the Cloud

Dejan Milojicic, Ph.D., Fellow of IEEE
Director, HP Labs, USA

Cloud computing has emerged as an economical alternative to supercomputers for some of the high-performance computing (HPC) applications. Particularly suitable are applications that can scale without high-end interconnects; during testing; debugging; and for smaller-scale deployments. An increasing number of HPC users adopts hybrid deployments, where part of the resources are in-house and part of them are in the cloud. This raises the question of which platform is better for which applications, problem sizes, data sets, and scale. In this presentation, we explore the economical tradeoffs of running applications in the Cloud vs. on supercomputers. We characterize HPC applications running on platforms from dedicated supercomputers to commodity clusters, both in-house and in the cloud, and for different degrees of virtualization. We then propose mechanisms to match HPC applications to the best deployment platform. We analyze the performance-cost tradeoffs and show that careful mapping can substantially reduce the cost without incurring significant performance penalty.

About the Speaker: Dr. Dejan Milojicic is currently a senior researcher and director of the Open Cirrus Cloud Computing testbed at HP Lab. He has worked in the areas of operating systems, distributed systems, and service management for more than 20 years. Dr. Milojicic has published over 120 papers in many journals and conferences. He is an inaugural editor in chief of IEEE Computing Now, a front end to IEEE Computer Society publications. He holds 10 patents and has many more patent applications. He has been engaged in standardization bodies, such as OMG and Global Grid Forum. He is an ACM distinguished engineer, IEEE Fellow and member of USENIX. He received his PhD from University of Kaiserslautern.

Keynote Panel: Big Data, Big Analytics, and Big Insights

Moderator: Tony Shan, Consultant, USA
Panelists: Amr Awadallah, Co-Founder and CTO at Cloudera, USA
Eric Baldeschwieler, Co-Founder and CTO at Hortonworks, USA
Shahid Shah, CEO of Netspective Communications, USA
Vanish Talwar, HP Labs, USA

ABSTRACT: The impact of big data is significantly cross-cutting, for both the business and technology management at the provider and consumer sides. To effectively explore the massive amounts of data, unconventional technologies and platforms have emerged in recent years, such as NoSQL and Hadoop. However, there are still a number of challenges, issues, constraints, barriers, and pitfalls in this evolving space. This panel is formed by the industry gurus and field practitioners, and will share the forward-thinking views and practical forecasts by anatomizing the potential outlook and
predicting the trends in the short term and long run, based on the real-world project experience and solutioning engagements from individual panelists.

MODERATOR:

Tony Shan is a renowned thought leader and innovative visionary with decades of field experience and guru-level expertise on cutting-edge enterprise computing technologies. He has directed and advised the pragmatic lifecycle design of large-scale award-winning distributed systems on diverse platforms in Fortune 50 companies and public sector organizations. He is a regular speaker and organizer in preeminent conferences, a book author, an editor of IT research journals, and a founder of several user groups and forums.

About the Panelists:

Amr Awadallah, Co-Founder and CTO at Cloudera. Prior to Cloudera, Amr was an Entrepreneur in Residence at Accel Partners. Before that he served as VP of Engineering at Yahoo!, and led a team that used Apache Hadoop extensively for data analysis and business intelligence across the Yahoo! online services. Amr joined Yahoo! after they acquired his first startup, VivaSmart, in mid-2000. Amr holds a Ph.D in Electrical Engineering from Stanford University.

Eric Baldeschwieler, Co-Founder and CTO at Hortonworks. Prior to co-founding Hortonworks, Eric served as VP Hadoop Software Engineering for Yahoo!, where he led the evolution of Apache Hadoop from a 20 node prototype to a 42,000 node service that is behind every click at Yahoo!. Eric also served as a technology leader for Inktomi’s web service engine, which Yahoo! acquired in 2003. Eric has a MS in CS from the University of California, Berkeley and a BS in Mathematics and Computer Science from Carnegie Mellon University.

Shahid Shah, CEO of Netspective Communications, is an internationally recognized and influential IT thought leader who is known as "The Healthcare IT Guy" across the Internet. He is a consultant to various federal agencies on IT matters and winner of Federal Computer Week's coveted "Fed 100" award given to IT experts that have made a big impact in the government. Shahid has architected and built multiple clinical applications over his almost 20 year career. Shahid also serves as a senior technology strategy advisor to NIH's SBIR/STTR program helping small businesses commercialize their healthcare applications.

Keynote Panel: Cloud Based Mobility — An Industry Perspective

Moderator: Leon Bian, Director, LG Electronics Inc, USA
Panelists: Sujit Dey, Professor, UC, San Diego; Chief Scientist, Mobile Networks, Allot Communications
• Asokan Thiyagarajan, Director, Technology Strategy, Samsung Information Systems America
• Andy Zmolek, Director, Business Development and Solutions Engineering, Enterprid Inc.
• Atul Sharma, Sr. Manager and Practice Leader, Ernst and Young

ABSTRACT: With the explosion of smart phones and media tablets worldwide, ubiquitous connectivity is constantly transforming the mobile landscape. Armed with ever more powerful hardware and increasingly sophisticated software and applications, consumers and enterprises now desire unified user experiences between the traditional Internet and mobile devices. Cloud based mobile computing can provide a foundation of technologies and business. This session will address the current trends, challenges, cloud into mobile networks, cloud-based mobile applications and services, recommendations, etc.

MODERATOR:

Leon Bian is a director of Global Enterprise Mobile Solutions at LG Electronics, where he develops and executes multi-generational mobile strategies for large enterprises, and small and medium businesses; and manages channels worldwide. Bian has close to 15 years of global high-tech experience with global Fortune 500 companies. Before joining LG, Bian was a senior product line manager at Motorola. Bian earned his joint Master's Degree in Engineering and Management from MIT.

About the Panelists:

Sujit Dey is a Professor with the Department of Electrical and Computer Engineering, University of California, San Diego, where he heads the Mobile Systems Design Laboratory. He is affiliated with the California Institute of Telecommunications and Information Technology (Calit2), and the UCSD Center for Wireless Communications. He also serves as the Chief Scientist, Mobile Networks, at Allot Communications. He founded Ortiva Wireless in 2004. Previously, he was a Senior Researcher at NEC. He received his PhD. Degree in CS from Duke University. Dr. Dey has co-authored more than 180 publications and a book on low-power design and several book chapters. He is the co-inventor of 16 US and 2 international patents. He has been the recipient of several Best Paper awards, and has chaired multiple IEEE conferences.

Asokan Thiyagarajan serves as the Director of Platforms and Technology Strategy at Samsung Information Systems America. He is a respected speaker at international conferences on technology. He authors technology and visionary articles for leading magazines around the world. Asokan has over 22 years of
international experience in high technology sectors. Prior to Samsung, Asokan held a variety of senior technology management positions in Motorola, Nokia, Ericsson, Compaq (HP).

Atul Sharma has founded two cross-border high-tech companies (S/w, PaaS, SaaS, cloud) and launched new service lines within Ernst & Young, apart from working at IBM Research and Cisco Systems. He is currently an Sr. Manager (one level below Partner) with E&Y Advisory in the San Francisco office. Atul has spoken at key conferences. Atul holds a joint Master’s Degree in Engineering and Management from MIT, a MS in CS from the University of New Brunswick.

Andy Zmolek leads Enterproid’s business development activities with technology partners for the Divide BYOD solution. He worked for LG and Avaya before. Andy received 10 patents to date for the communications-related security and presence technologies he helped develop at Avaya. Andy spent his dot-com years directing networking IT at an enterprise application integration startup acquired by Sybase (now part of SAP).

Keynote Panel: IEEE/IEEE CS Cloud Computing Initiative and Standardization

Moderator: Stephen L. Diamond, Chair, IEEE Cloud Computing Initiative, Global Standards Officer, EMC
Panelists: Tomonori Aoyama, Chair, Global InterCloud Task Force, Professor, Keio University, Japan
David R. Bernstein, Chair, IEEE P2302 Standard for Intercloud Operability and Federation, VP, Cloudscaling
Donald R. Deutsch, Chair, ISO/IEC JTC 1 SC38, Chief Standards Officer, Oracle
Chris Kemp, Co-founder, OpenStack, Founder and CEO, Nebula, Inc.
Dawn Leaf, Senior Executive for Cloud Computing, NIST
Joe Weinman, Senior Vice President, Cloud Services & Strategy, Telx

ABSTRACT: Major topics: Vendor perspective on cloud computing; Global vs. US cloud computing standards development organizations; Consortium cloud development standards; Government involvement in cloud computing; Vendor perspective on cloud computing products and services; and IEEE Cloud Computing Initiative.

MODERATOR:

Stephen L. Diamond is Global Standards Officer and General Manager of Industry Standards at EMC Corporation. He chairs the IEEE Cloud Computing Initiative and the IEEE Cloud Computing Standards Committee. Steve has 30 years of senior management experience in semiconductors, software, systems, and standards. Prior to EMC, he was Director at Cisco and VP of Marketing at Equator Technologies. Steve has authored more than 20 technical publications. He was the 2003 President of IEEE Computer Society and served on the IEEE Board of Directors. Steve was awarded the IEEE Third Millennium Medal in 2000.

About the Panelists:

Tomonori Aoyama received Dr. Eng. from the University of Tokyo, Japan. He was Director of the NTT Optical Network Systems Laboratories. Then he moved to University of Tokyo as a professor in the Department of Engineering. Afterwards, he moved to Keio University as Processo, and is also serving as R&D Advisor in NIC (National Institute of Information and Communication Technologies). Dr. Aoyama is Emeritus Professor of the University of Tokyo, IEEE Life Fellow and IEICE (Institute of Electronics, Information and Communication Engineers) Fellow. Dr. Aoyama is Chair of the Global Inter-Cloud Technology Forum (GICTF) and is serving as President of NPO, Digital Cinema Consortium of Japan (DCCJ).

David Bernstein is VP of Strategy for Cloudscaling, Inc. Previous to that, he was Managing Director of Cloud Strategy Partners, LLC, VP/GM at Cisco, executive positions in AT&T, Siebel Systems, Pluris, Intertrust, and Santa Cruz Operation. David holds nearly a dozen patents in software and communications, speaks and publishes regularly in IEEE, and is Founder and Working Group Chairman, of IEEE P2302 Standard for Intercloud Interoperability and Federation. He has been a key author/contributor to many other industry standards such as OpenSOA.org, OASIS SCA, WS-I, JCP/J2EE, and IEEE POSIX. David holds degrees in Physics and Mathematics from University of California.

Don Deutsch is VP, Chief Standards Officer, for Oracle. Don's activities include: Chair, ISO/IEC JTC 1 SC38: web services, SOA and cloud computing, INCITS DM32: Data Management & Interchange, INCITS DM32.2: Database (SQL); Vice Chair - INCITS Executive Board: US TAG to JTC 1; Co-chair - W3C Patent and Standards Interest Group; Member: ANSI Board of Directors, IEC Market Strategy Board, Java Community Process: Executive Committee. Don earned MBA and Ph.D from the University of Maryland, College Park. ANSI recognized Dr. Deutsch for his leadership of national and international information technology standardization as the 2002 recipient of the Edward Lohse Information Technology Medal.

Chris C. Kemp is the co-founder and CEO of Nebula, developers of a turnkey enterprise private cloud computing system. Prior to Nebula, Kemp was the CTO for IT at NASA, where he co-founded OpenStack. Kemp has also served on the White House Cloud Computing Executive Steering Committee, and was the...
chair of the Cloud Standards Working Group. Previously, Kemp served as the CIO of NASA Ames Research Center. He is an acknowledged technology leader and has been named a top CIO by CIO Magazine and was most recently recognized as the number one leader in cloud computing for 2012 by TechTarget.

Dawn Leaf is a Senior Advisor in the NIST Information Technology Laboratory, and the NIST Senior Executive for Cloud Computing. Prior to NIST, Leaf served as the Deputy CIO & CTO for the US DoC, CIO of the Bureau of Industry and Security and as the CTO of the Smithsonian Institution. Previously, she served as program manager for several NASA and NOAA programs. Ms. Leaf holds an M.S. in Systems Engineering from the Johns Hopkins University.

Joe Weinman leads Telx’s fast-growing cloud services business development and strategy. He has over 30 years of experience in executive leadership positions at AT&T, HP, and Bell Lab, in areas such as corporate strategy, business development, product management, operations, and R&D. Named a “Top 10 Cloud Computing Leader” by TechTarget, Weinman is a frequent keynote speaker, blogger and the founder of Cloudonomics and the author of Cloudonomics: The Business Value of Cloud Computing, available from John Wiley & Sons in summer, 2012. He has been awarded 14 U.S. and international patents. He has MS in CS from UW-Madison and has completed Executive Education at the International Institute for Management Development in Lausanne.

Keynote Panel:
Adoption of Services Computing, A Balancing Act

Moderator: Hermant Jain, University of Wisconsin – Milwaukee, USA
Panelists: Narayana Mandalika, Vice President & Head BS&CC, Tata Consultancy Services, India
Michael Goul, Arizona State University, USA
Leon Zhao, City University of Hong Kong

ABSTRACT: Due to service centricity of the IT offerings, the need to establish connection on the value and benefits of IT spending is becoming imperative. For the long term viability of service computing service provider and consumers needs to derive appropriate value. The panelist will present working philosophy that can serve as principles to create lasting business value to all concerned. If one is able to control the high costs of infrastructure and maintenance, one can invest in future technologies and experiment in innovative business models. The quest is therefore to have the flexible IT infrastructure with high availability and this seems to have addressed to a large extent by Services Computing. Additionally, the panelist will discuss wide-spread opportunity to more closely align service computing capabilities with successful inter-organizational business models that are proliferating throughout the global economy.

Moderator:
Hemant Jain is Wisconsin Distinguished & TCS Professor of Management Information System in Sheldon B. Lubar School of Business at University of Wisconsin - Milwaukee. Dr. Jain specializes in information system agility through web services, SOA, component based development, real time enterprises and health care informatics. Dr. Jain is the Associate Editor of IEEE Transactions on Services Computing and is Associate Editor of Journal of AIS. Additionally, he serves on the editorial board of a number of other highly regarded Journals. He is on the board and member of Steering Committee of IEEE TC-SVC. He received his Ph. D. in information system for Lehigh University.

About the Panelists:
M (Mandalika), G.P.L. Narayana is VP and Head of Business Systems & Cybernetics Center (BS&CC) of Tata Consultancy Services Limited, the largest software services company of India. His consulting work in telecom and wireless includes managing and leading India’s first ISDN switch development, developing distributed software architecture for inter system roaming for Personal Communications Services (PCS). The currently managed research areas include value articulation, component reuse, enterprise modeling and contextual search engines. Mr. Mandalika holds Master’s degree in CS from the Indian Institute of Science (IISc), Bangalore. He is a fellow of IETE. He is the past Chair of IEEE, Hyderabad Section, 2010-2011.

Michael Goul is Professor and Chair of the Department of Information Systems, W.P. Carey School of Business, Arizona State University. Michael’s research extends from services computing to analytics/business intelligence. He has published in a wide range of research journals, and his current interests are in service networks and analytics-as-a-service. Dr. Goul is an Associate Editor for IEEE Transactions on Services Computing, and he has co-edited special issues of Decision Support Systems and Decision Sciences.

J. Leon Zhao is Head and Chair Professor in IS, City University of Hong Kong. He was Interim Head and Eller Professor in MIS, University of Arizona. He holds Ph.D. from Haas School of Business, UC Berkeley. His research is on information technology and management, focusing on collaboration and workflow technologies and business information services. He is director of Lab on Enterprise Process Innovation and Computing funded by NSF, RGC, SAP, and IBM among other sponsors. He received IBM Faculty Award in 2005 and was awarded Chang Jiang Scholar Chair Professorship at Tsinghua University in 2009.
Keynote: Best Practices and Challenges of Service Delivery over Private and Hybrid Clouds

Akhil Sahai, Ph.D.
VP, Gale Technologies, USA

While Application delivery has become increasingly service-oriented, Data Centers are coalescing around Private and Hybrid Clouds. In addition to the ubiquitous access, favorable economics and ease of use that service delivery over Cloud environments bring, they also lead to lot of challenges that need to be addressed. While virtualization is taking hold in data centers, services being delivered on such Cloud environments often span physical and virtual resources and are increasingly federated. Delivering tiered services with QoS and managing them over their life-cycle on top of such heterogeneous, multi-tenant and federated environments pose new set of issues. In this presentation, we will explore challenges, economic considerations and best practices to address service-delivery over cloud environments.

About the Speaker:
Dr. Akhil Sahai has over 20 years of experience in the area of Enterprise Software, System and Services Management and Data Center Automation. He is currently the VP at Gale Technologies. Before Gale, he was director at Cisco, VMware, and HP and HP Labs. He was also one of the initial members of the HP E-speak project that pioneered the paradigm of next generation web services over the Internet. He has published 80+ refereed papers, written a book on web services management and 4 book chapters, chaired multiple IEEE/IFIP conferences and has filed 20 patents (with 12 granted). He has a PhD from INRIA, France, and an MBA from Wharton.

Keynote Panel: Challenges and Future Research Directions of Services Computing

Moderator: Stephen S. Yau, Arizona State University, USA
Panelists: Ephraim Feig, Chair, IEEE Computer Society Technical Committee of Services Computing (TC-SVC)
Louise Moser, University of California, Santa Barbara, USA
Liang-Jie Zhang, Kingdee International Software Group CO. Ltd, China

ABSTRACT:
In spite of many advances in services computing, in order to make broad utilization of services computing effectively, there are still many challenges to be addressed, ranging from foundation, technologies as well as user expectations. The main focus of this panel is to identify these challenges, and discuss possible future research directions to address these challenges, including the important information presented and discussed in these conferences.

Moderator:
Stephen S. Yau is currently Professor of Computer Science and Engineering and the Director of Information Assurance Center at Arizona State University (ASU). He served as the chair of the Department of Computer Science and Engineering at ASU in 1994-2001. Previously, he was on the faculties of Northwestern University and University of Florida. He served as the President of IEEE Computer Society and on the IEEE Board of Directors and the Board of Directors of Computing Research Association. He also served as the Editor-in-Chief of IEEE COMPUTER, and organized many national and international major conferences. He is a general co-chair of ICWS/SCC/CLOUD/MS/SE/SERVICES 2012. He is a Fellow of the IEEE and a Fellow of the American Association for the Advancement of Science.

About the Panelists:
Ephraim Feig is the Chair and founding member of IEEE Computer Society TC-SVC (spell out). He was Senior Director for Services Architectures at Motorola (2006-2008), CTO (spell out) and CMO (spell out) at Kintera (2000-2006), and a researcher and R&D manager at IBM (1980-2000). He is a Fellow of the IEEE. He was an adjunct professor at several universities, including Columbia University. He served as an Associate Editor-in-Chief of IEEE Transactions on Services Computing. He has also served in previous years as chairs of IEEE ICWS and IEEE SCC.

Louise Moser is a professor in the Department of Electrical and Computer Engineering at the University of California, Santa Barbara. Her research interests span the areas of distributed systems, computer networks, and software engineering. She has served as an associate editor for IEEE Transactions on Computers and an area editor for IEEE Computer magazine in the area of networks, and on numerous conference program committees. She has published more than 225 conference and journal publications, and has 10 patents granted or pending. She received a Ph.D. in Mathematics from the University of Wisconsin, Madison. She is Program Chair of IEEE International Conference on Services Computing (SCC 2012).

Liang-Jie (LJ) Zhang is Senior Vice President, Chief Scientist and Director of Research at Kingdee International Software Group Company Limited. He is a director of The Open Group. Prior to joining
Kingdee, he was a Research Staff Member at IBM T.J. Watson Research Center. He was the founding chair of the IEEE Computer Society's Technical Committee on Services Computing and the founding Editor-in-Chief of the IEEE Transactions on Service Computing and International Journal of Web Services Research. He also chaired the Services Computing Professional Interest Community at IBM Research from 2004 to 2006. He was the lead IBM researcher on SOA solutions, web services, and interactive media systems. He has served as the EIC of the International Journal of Web Services Research since 2003. He is a Fellow of the IEEE, and won the IEEE Technical Achievement Award. He is the Chair of the Steering Committee of the Services Congress.