

SS5: Hybrid and Federated Cloud Systems

■ Call for Paper

With the growing demand of cloud services and migration of enterprise IT infrastructure to private clouds, a cloud user, especially with mobile devices, interact with different cloud infrastructures for different applications and services. In Hybrid cloud model, private and public clouds offer services to the same user with minimal cloud-cloud interaction. In Federated cloud model, multiple cloud providers collaborate at different levels to offer services to the same user. There is an emerging home cloud architecture to connect multiple user devices in a private cloud setting but with close interaction with provider cloud for different subscribed home services. The cloud collaboration is becoming more important for smart city that provides space for interactions for multiple cloud providers. In this special session, we are soliciting papers presenting current research on different aspects of Hybrid and Federated cloud.

The special session covers all related topics, including but not limited to:

- Service models for Hybrid and Federated clouds
- Service Level Agreements with multiple providers clouds
- Resource discovery, sharing and management between clouds
- Multi-level Scheduling
- Network bandwidth management in the cloud
- Scalability and dynamic load management
- Application partitioning
- Context-aware application design
- Context-aware resource and service provisioning
- Home cloud and IoT
- Context-aware cloud selection

■ Important Dates

Paper Submission: June 30, 2015

Notification of Acceptance: August 3, 2015

Final Paper: August 17, 2015

■ Session Organizers

Dr. Muhammad Jaseemuddin, Associate Professor, ECE Department, Ryerson University, Canada

Dr. Muhammad Jaseemuddin is leading Mobile Wireless Internet group in Wireless Communication and Networking (WICON) Lab at Ryerson University. His group has been working in the evolution of wireless networks for multimedia services, and mobile middleware and cloud computing. The group has been working on MAC and routing for smart beamforming antennas, interference-aware routing for cooperative communication, power optimization in wireless networks, routing in sensor networks, and vertical handover. The group has developed a P2P Reliable Ad Hoc Overlay Network (RAON) with cooperative caching support for multimedia application delivery and video streaming in mobile wireless ad hoc networks. The group is developing a context-aware cloud service broker for hybrid cloud that is capable of performing resource allocation, scheduling and resource scavenging. The team is managing and experimenting with an OpenStack Lab. His interests in Internet Routing leads to developing Routing Failure Analysis and Recovery tool. He received B.E. from N.E.D. University of Engg. & Tech., Karachi, Pakistan, in 1989, M. S. from The University of Texas at Arlington in 1991, and Ph.D. from The University of Toronto in 1997. He worked in Advanced IP group and Wireless Technology Lab (WTL) at Nortel Networks from 1998 to 2001. He worked on Wireless Service Delivery Platform and UMTS VHE prototype for mobile service delivery.

Dr. Mohammed Khalid, Associate Professor, ECE Department, University of Windsor, Canada

Dr. Mohammed A. S. Khalid received the Ph.D. degree in Computer Engineering from the University of Toronto in 1999. He has over 25 years of experience in teaching, research and development in academia and industry. Before joining the University of Windsor in August 2003, he worked for 4 years as a Senior Member of Technical Staff in the Verification Acceleration R & D Group (formerly Quickturn), of Cadence Design Systems, based in San Jose, California. His research and development interests are in architecture and CAD for field programmable chips and systems, reconfigurable computing, embedded system design and hardware description languages. He has published several papers in these areas and holds a U.S. Patent in the area of architecture of reconfigurable systems. His recent research includes novel applications of FPGAs in DSP and wireless sensor networks.

Dr. Govinda Ravindran, Trice Research, Toronto, Canada

Dr. Govi Ravindran is a Technology and Strategy Consultant with 15+ years of experience in the Telecommunications industry. Govi has designed and deployed large scale communication systems and has led large cross-functional teams in consumer and enterprise service rollouts. Currently, as a principal at Trice Research, Govi is driving technology and product research in the emerging areas of IoT, Context Aware Computing, and Machine Learning. Govi holds a Ph.D in Computer Engineering from the University of Toronto, and an MBA in Corporate Finance and Strategy from the Schulich School of Business. Govi is a Senior Member of the IEEE, a Licensed Professional Engineer in the province of Ontario, and has served as an Adjunct Faculty member in Departments of Electrical Engineering and Computer Science at Ryerson and Carleton Universities.