
Next generation cloud systems will require a shift in how they are constructed and managed, and how they approach flexibility, dependability and security. For example, a well-designed and well-engineered cloud, given appropriate abstractions, authorizations and permissions, should not be “stiff” - hard to modify and adapt in an integrated fashion. This includes underlying networking topologies, user control over IaaS, PaaS or SaaS layers when such is needed, construction of new services (XaaS), provenance and meta-data collection, and so on. The concept of Software Defined Systems (SDS) helps with abstraction and modifiability. It includes Software Defined Networking (SDN), Software Defined Storage, Software Defined Servers (Virtualization), Software Defined Datacenters (SDD), Software Defined Security (SDSec), and ultimately fully Software Defined Clouds (SDCloud) to name a few possibilities. Individual solutions and seamless integration of these abstractions remains in many respects a challenge. This first International workshop on Software Defined Systems (SDS -2014) provides a forum for scientists, researchers, students, and practitioners to present their latest research results, ideas, and developments in the area of software defined systems – both components and their integration - and by implication advancement of next generation clouds.

We would like to extend our profound thanks to all who have helped make this workshop a success: the sponsors of the IC2E conference and the workshop, the presenters for honoring us with their presence and for contributing to the success of the meeting, SDS technical program committee led by the co-Chairs – Drs. Khreishah, Rindos, and Yojiro for their efforts and their invaluable help in construction of the conference programs, our invited speaker and panel co-Chairs– Drs. Benkhelifa and Al-Ayyoub and our publicity co-chairs Drs. Nee and Khan.

We have a very exciting and rich program that covers a broad range of topics – from software defined radio networks, to software defined security, to improved cloud elasticity and management, to supercomputer-based clouds. Accepted papers will be invited to submit extended versions to the Special Issue of the International Journal of Grid and High Performance Computing (IJGHP).

We hope that all in attendance will come away from the workshop with new ideas and insights, but most importantly, we sincerely hope that you will enjoy the event and your stay in Boston.

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