

**Call for Papers for  
First International Workshop on Orchestration for Software-Defined Infrastructures (O4SDI)**

**Workshop Co-Chairs**

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<http://icc2016.ieee-icc.org/cfw>

**Scope**

The current convergence between computing and networking eco-systems clearly shows that software will play an unprecedented dominant role in future communication environments. Computing, storage, and connectivity services will be deployed as generalized virtual functions within a software-defined infrastructure composed of a “fog” of micro-clouds, typically located at the edge of the network. Suitable orchestration mechanisms must then be devised to facilitate the live deployment and dynamic lifecycle management of these virtual elements, at the application level, the server level, and the network level, within a single domain and across multiple domains. The open issues that must still be addressed include: unified management of computing, storage, and network resources; abstraction models and open standard interfaces; adaptation and optimization mechanisms to be enforced at global and/or local levels.

The *First IEEE International Workshop on Orchestration for Software-Defined Infrastructures (O4SDI)* aims at providing an international forum for researchers and practitioners to discuss and address the challenges that must be faced in order to facilitate orchestration and programmability of generalized virtual functions in Software Defined Infrastructures (SDI). The workshop welcomes contributions from both computing and network oriented research communities, with the aim of facilitating interdisciplinary discussion, cross-fertilization and exchange of ideas and best practices.

**Topics of Interest**

Due to the highly interdisciplinary scope of the workshop, contributions are expected from both computer science and communications areas. Works that discuss lessons learnt and best practices, describe practical deployment and implementation experiences, and/or demonstrate innovative use-cases are especially encouraged for presentation in the workshop. We are particularly interested in papers that cover, but are not limited to, the following topics:

- single domain and cross domain orchestration issues
- integrated network and computing resource control and management
- control and abstraction of heterogeneous networks
- orchestration in SDN/NFV
- orchestration for next-generation IP and optical networks
- QoS/QoE in software-defined infrastructures
- orchestration for high-availability and resilience in software-defined infrastructures
- network programmability for service chaining
- run-time orchestration
- dynamic service composition and delivery
- software engineering and operating systems techniques applied to orchestration
- description, specification, and abstraction languages for orchestration
- optimal orchestration algorithms
- context-aware orchestration
- functional architectures of orchestrating elements
- testbed experiments on orchestrations
- performance evaluation of orchestration elements
- standardization issues in orchestration

O4SDI 2016 will also feature a panel discussing Orchestration in the context of Software Defined Infrastructures, as well as invited talks. Dr. Stuart Clayman, University College London, will moderate the panel and will also give a talk about the role of abstractions in software which will be particularly important for network orchestration, one of the most important interdisciplinary aspects of the workshop theme.

**Technical Program Committee**

Stuart Clayman, *University College London*

**Important Dates**

Paper submission deadline: December 4, 2015

Acceptance notification: February 21, 2016

Camera-ready paper: March 13, 2016