

Cloud Communications and Networking

The networks of the future will be completely virtualized in physical infrastructures – essentially datacenters of varying sizes. Very small datacenters will be located on the periphery of the network, near to the user. This physical infrastructure will be used to support software networks that are tailored to the clients' needs and to those of the applications for which they were generated. The agility of these networks is the main difference with previous-generation networks: it is possible to replace a network in a few minutes, or even a few seconds, and by using automation, in a few milliseconds.

Overall, this new generation of technologies is based on the Cloud, and on virtualization, which also shows the overlap with migration, NFV and Cloud of security.

The NFV standard attaches a great deal of hope to the major simplification which is offered by virtual machines. The Open Platform for NFV (OPNFV) project represents another promising avenue. The OPNFV solution would be Carrier-Grade, integrated, and should give rise to an open-source platform developed by the Linux Foundation.

The contributions should address, but are not limited to, the following research issues/topics:

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| <ul style="list-style-type: none">• Autoscaling in clouds• Cloud capacity planning• Cloud Federation and Hybrid Cloud Infrastructure• Cloud Traffic Characterization and Measurements• Cloud Traffic Engineering and Control-Plane Architectures• Cloud Networking in 5G• Data Center Network Management, Reliability, Optimization• Distributed Data Center Architectures and Services: IaaS, PaaS, SaaS• Energy-Efficient Datacenters and Networks• Green Data Centers and Cloud Networking• Internet Routing of Cloud data• Microservices and Container deployments | <ul style="list-style-type: none">• Mobile Cloud Networking• Network as a Service• Network Functions Virtualization• Network Virtualization• Quality of Service or Experience (QoS & QoE) in Cloud Services and Networking• Security, Privacy, and Confidentiality in Cloud Networking• Software Defined Networks• Storage Area Networks, Optical Interconnect, Fiber Channels• Virtual Ethernet Switching, Data Center Bridging• Virtualization of Network Equipment Wireless Data Center |
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Guest Editors

- **Harry Perros**, NCSU, USA
- **Ioannis Papapanagiotou**, Netflix, USA
- **Guy Pujolle**, UPMC, France

Papers must be written in English and describe original research not published or currently under review by other journals or conferences. The length of the article file should not exceed 35,000 characters including spaces (i.e., around 5,500 words). The manuscripts that are outside the expected length are likely to be rejected. All relevant papers submitted will go through an external review process. Papers published in a conference can be submitted but they should include at least 30% of novel material, and the authors should clearly indicate what is the additional material. Submissions should be sent according to the instructions available at: <http://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/>

The authors can directly submit their paper at: <https://www.editorialmanager.com/ante/default.aspx> and must select the relevant CfP in "Choose Article Type"

Proposed schedule

- **Manuscript submission** ~~March 31st, 2017~~ **Extended April 15th, 2017**
- **Notification of acceptance (after revision)** September 1st, 2017
- **Online with DOI** As soon as accepted
- **Printed issue** November 2017-February 2018