

Virtualized Environments, from Connectivity to Services

Virtualization technologies are transforming the way to conceive network and services. These technologies are indeed used in very different domains, from Radio Access Networks to the Internet of Things. In any cases, virtualized environments rely on three main layers:

- a Physical layer containing the physical resources (e.g. computation, storage, captor or actuator);
- a Virtual layer managing virtual functions (e.g. Virtualized Network Functions, Virtual Machines, Virtual Objects, etc) that relies on the physical resources for their instantiation;
- and a Service layer including the services that orchestrate or chain these virtual functions to build end-to-end solutions, answering to user requirements.

The aim of this special issue is to investigate the various aspects of this Virtual layer, and its relationships with the Physical layer and the Service layer. Within this scope, submitted articles might either focus on a specific domain (e.g. Cloud RAN or virtual Internet of Things), or to consider a transversal topic (e.g. security or privacy in virtualized environment) illustrated by a contribution in a specific domain.

Topics of interest include but are not limited to:

- Emerging Virtualization technologies
- Comparison between virtualization paradigms (e.g. containers, unikernels...)
- Allocation and Scheduling of physical resources
- Continuous Monitoring and Management of physical resources (inc. FCAPS)
- Capacity and reliability of physical resources
- Modelling Virtual Functions and mapping to physical resources
- Orchestration and Chaining
- Security within Virtualized Environments
- Virtualized Environment for communication services (inc. WebRTC)
- Big data insights to enhance Virtualized Environments
- Identity Management in virtualized environments
- Privacy and Trust for Virtualized Environments
- Energy awareness for physical resources and Virtual Functions
- User perception of virtualized services
- Impact of the physical layer on the global SLA (e.g. delays, QoE...)
- Machine-to-Machine communications in Virtualized Environments

Guest Editors

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All papers must be submitted at the Editorial manager site <https://www.editorialmanager.com/ante/>. A guide for authors in preparing their papers is available at <https://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/>. All submissions must be original and not currently under review for publication elsewhere. The special issue will invite extended versions of the selected papers presented at the [ICIN 2016 conference](#). We also strongly encourage researchers unable to participate to the conference to submit papers for this call.

Proposed schedule

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| • Manuscript submission | Ext. Sept. 25, 2016 | • Final Manuscript Due | Jan. 31, 2017 |
| • First Decision Notification | Nov. 15, 2016 | • Online with DOI | As soon as accepted |
| • Revised Paper Submission | Dec. 15, 2016 | • Printed issue | July-December 2017 |
| • Final Decision | Jan. 15, 2017 | | |