Call for Papers

Special Issue on

Enabling Technologies for Running IoT Applications on the Cloud

Lead Guest Editor

Diogo Mattos, Universidade Federal Fluminense, Brazil

Guest Editors

Daniel Mossé, University of Pittsburgh, United States

Dianne Medeiros, Universidade Federal Fluminense, Brazil

Topics of interest include, but are not restricted to:

- 5G and 6G cellular networks (3GPP, ETSI, IEEE, etc.)
- Slicing solutions
- Cloud/ Fog solutions
- Smart Grids solutions
- Smart Homes/Buildings/Cities solutions
- Industry 4.0 solutions
- Software Defined Network (SDN)

- Network Function Virtualization (NFV)
- Architecture and protocols
- Green communication
- Centralized and distributed systems
- Management system
- Real-time issues
- Security
- Routing and MAC
- Big data
- Testbed and experimental platforms
- Industrial solutions
- Blockchain

The structures of contemporary society are continually changing due to the rapid diffusion and transparent integration of computers and smart devices into daily life. The Internet of Things and Industry 4.0 have fostered new business opportunities, but they also present new and challenging requirements, such as low latency, security, and highly reliable communications. Hence, the next generations of telecommunications networks (5G and 6G) include increasing smart devices, such as cellphones and sensors, allowing real-time applications, and providing intelligence and confidentiality in the network infrastructure. To meet these requirements, the next generations of Internet of Things systems rely on fog and cloud computing, which emerge as potential solutions for the dynamic allocation of computational and network load to meet IoT application demands. In this sense, several challenges are latent, such as the following examples: autonomous communication of things (thing-to-thing or T2T), security of next-generation networks, new technologies that enable IoT applications in the cloud, multi-part connectivity, workload allocation, development of new IoT and Industry 4.0 applications.

This special issue focuses on the challenges of deploying cloud-based and Internet of Things applications, while considering the whole end-to-end architecture over the next generations of telecommunication networks, such as 5G & 6G, and cloud-enabled data center networking.

Papers must describe original research that advances the state-of-the-art and must not be simultaneously submitted to another journal or a conference with proceedings. Papers must be written in excellent English and comply with the instructions in the site. Previously published or accepted conference papers must contain at least 50% new material to be considered for the special issue; a cover letter clearly describing such extensions must

accompany these types of submissions. All submissions must be made using the instructions available at:

http://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/

The authors can directly submit their papers at: https://www.editorialmanager.com/ante/ and must select "Open Topic" in the menu "Choose Article Type" and then in the questionnaire on the "Additional Information" section, authors will be able to select the item "CfP: **Enabling Technologies for Running IoT Applications on the Cloud**".

Proposed Schedule

Manuscript Submission	February 15, 2021
Author notification	March 15, 2021
Revised papers submission	April 16, 2021
Final acceptance	May 7, 2021
Online with DOI	As soon as accepted
Printed issue	Second half of 2021

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https://scholar.google.com/citations?user=QtYSGFoAAAAJ

Dr. Diogo Menezes Ferrazani Mattos is a professor at the Universidade Federal Fluminense (Niterói, Brazil). He received his degrees of D.Sc. and M.Sc. in Electrical Engineering from Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil, in 2017 and 2012. Between 2015 and 2016, he had a full-merit scholarship to work on his Ph.D. research in the LIP6 (Laboratoire d'Informatique de Paris 6) at Université Pierre et Marie

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Dr. Daniel Mossé

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Dr. Daniel Mossé received his BS (Mathematics, 1985) from the University of Brasilia, Brazil, and MS and PhD degrees (Computer Science, 1990 and 1993) from the University of Maryland, College Park. He has been involved in the design and implementation of a couple of distributed, real-time operating system. His main research interest is in distributed systems, more specifically the allocation of resources (computing and network resources) in the realm of real-time, Internet of Things, power management, security, and fault tolerance. He bridges the gap between the operating systems and networking research fields. His research interests include Internet of Things, power-, energy- and temperature-aware systems; real-time systems, scheduling, distributed systems, wireless networking.

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