2nd IEEE International Conference on Fog and Edge Computing (ICFEC 2018)

May 1-3, 2018, Washington DC, USA.

In conjunction with the 18th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, IEEE/ACM CCGrid 2018

Keynote speaker: Prof. Kenneth P. Birman, Cornell University, USA

Call for papers

********** (Papers due: extended to December 20, 2017) **********

The Internet of Things (IoT) paradigm promises to make "things" such as physical objects with sensing capabilities and/or attached with tags, mobile objects such as smart phones and vehicles, consumer electronic devices and home appliances such as fridge, television, healthcare devices, as part of the Internet environment. In cloud-centric IoT applications, the sensor data from these "things" is extracted, accumulated and processed at the public/private clouds, leading to significant latencies.

To satisfy the ever increasing demand for Cloud Computing resources from emerging applications such as Internet-of-Things (IoT), academics and industry experts are now

advocating for going from large-centralized Cloud Computing infrastructures to micro data centres located at the edge of the network. These micro data centres are often closer to a user (geographically and in access latency) compared to the centralized cloud data centre. The aim of utilizing such edge resources is to off load computation that would have "traditionally" been carried out at the cloud data centre to a resource that is closer to a user or edge devices. This vision also acknowledges the variation in network latency from an end user to cloud data centre. Whereas the network around a data centre is often high capacity and speed, that near the user device may have variably properties (in terms of resilience, bandwidth, latency, etc).

Referred to as "fog/edge computing", this paradigm is expected to improve the agility of cloud service deployments in addition to bringing computing resources closer to end-users. On the one hand, the development of Fog and Edge clouds includes dedicated facilities, operating system, network and middleware techniques to build and operate such micro data centres that host virtualized computing resources. On the other hand, the uses of Fog and Edge clouds requires extension to current programming models and propose new abstractions that will allow developers to design new applications that take benefit from such massively distributed systems. The use of this approach also opens up other challenges in: security and privacy (as a user now needs to "trust" every micro data centre they interact with), support for resource management for mobile users who transfer session from one micro data centre to another, support for "embedding" such micro data centres into devices (e.g. cars, buildings, etc.)

The conference seeks to attract contributions covering both theory and practice of any of the aforementioned challenges, from the management software stack to domain-specific applications.

Topics of interest include (but are not limited to):

- Data centers and infrastructures for Fog/Edge Computing
- Middleware for Fog/Edge infrastructures
- Programming models and runtime systems for Fog/Edge Computing
- Scheduling for Fog/Edge infrastructures
- Fog/Edge storage
- Monitoring/metering of Fog/Edge infrastructures
- Fog/Edge Computing applications
- Latency/locality-critical applications
- Legal issues in Fog/Edge clouds
- Security and privacy – including support for new cryptographic approaches
- Modeling Fog/Edge environments – e.g. using process networks, agent-based models, Peer-2-Peer systems, etc.
- Performance monitoring and modeling
- Applications of Fog/Edge Computing

Website: http://www.cloudbus.org/fog/icfec2018/

Conference Dates: May 1 - 3, 2018

Important Dates for Submission:

Papers due: November 27, 2017 -- Extended to **December 20, 2017**

Link for Submissions: https://easychair.org/my/conference.cgi?conf=icfec2018

Author notifications of Acceptance: January 31, 2018 Camera Ready Paper: February 14, 2018

Registration aligned with CCGRID Deadlines: http://ccgrid2018.seas.gwu.edu/

Publication:

Proceedings will be published through the IEEE Computer Society Conference Publishing Services. Paper submitted could be accepted as REGULAR paper (10 pages) or SHORT papers (4 pages), depending on the review scores.

Special Issues:

Authors of highly rated papers from ICFEC 2018 will be invited to submit an extended version to a special issue of the Journal of Software: Practice and Experience (SPE): Software Tools and Techniques for Fog and Edge Computing, published by Wiley Press.