Accepted Manuscript

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PII: S0167-739X(17)30268-6
DOI: https://doi.org/10.1016/j.future.2017.09.036
Reference: FUTURE 3692

To appear in: *Future Generation Computer Systems*

Received date : 19 February 2017
Revised date : 28 July 2017
Accepted date : 15 September 2017

Please cite this article as: X. Masip-Bruin, E. Marin-Tordera, A. Jukan, G. Ren, Managing resources continuity from the edge to the cloud: Architecture and performance, *Future Generation Computer Systems* (2017), https://doi.org/10.1016/j.future.2017.09.036

Managing Resources Continuity from the Edge to the Cloud: Architecture and Performance

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Abstract

The wide spread deployment of smart edge devices and applications that require real-time data processing, have with no doubt created the need to extend the reach of cloud computing to the edge, recently also referred to as Fog or Edge Computing. Fog computing implements the idea of *extending the cloud where the "things" are*, or in other words, improving application performance and resource efficiency by removing the need to processing all the information in the cloud, thus also reducing bandwidth consumption in the network. Fog computing is designed to complement cloud computing, paving the way for a novel, enriched architecture that can benefit from and include both edge(fog) and cloud resources. From a resources perspective, this combined scenario requires resource continuity when executing a service,

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