



Emerging Software as a Service and Analytics

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ABSTRACT

This special issue of Open Journal of Cloud Computing (OJCC) (www.ronpub.com/journals/ojcc) reports work in the field of emerging software as a service and analytics, and presents innovative approaches to delivering software services in research and enterprise communities. It contains extended versions of papers selected from the international workshop on Emerging Software as a Service and Analytics (ESaaS) in association with the international conference on cloud computing and serviced science taken place in Barcelona, Spain during April 2014. OJCC is published by RonPub (www.ronpub.com), which is an academic publisher of online, open access, peer-reviewed journals.

TYPE OF PAPER AND KEYWORDS

Editorial: ESaaS, special issue, Open Journal of Cloud Computing, OJCC, RonPub

1 INTRODUCTION

Emerging Software as a Service (ESaaS) and Analytics have been adopted and used extensively by a variety of organizations. ESaaS and analytics offer added values and improvements e.g. in efficiency, technical performance and service ratings. A number of software, sciences and technologies have been provided as a service. Health Informatics as a Service (HIaaS) computes simulations in tumor, proteins, DNAs and human organs. Security as a Service (SeaaS) provides recommendation and safeguards security for all aspects of Cloud. Financial Software as a Service (FSaaS) can compute pricing and risk, offering quality services for entrepreneurs and decision makers. Education as a Service (EaaS) can deliver modern education and a high quality learning experience.

This special issue “Emerging Software as a Service and Analytics” presents the state of the art in the area of emerging software as a service and analytics, and collects contributions, which demonstrate proof-of-

concept, design and implementations, case studies and use cases for adopting ESaaS and analytics, including experiments, technical evaluations and user experiences. “Emerging Software as a Service and Analytics” is a special issue of Open Journal of Cloud Computing (OJCC) [5]. OJCC [5] is an open access, peer-reviewed, academic journal published by RonPub [7].

2 CONTENT OF THIS SPECIAL ISSUE

The papers in this special issue are selected from the ten full papers and one short paper which were presented at the international workshop on Emerging Software as a Service and Analytics (ESaaS). Each selected paper is extended, reviewed and revised for inclusion in this special issue.

“An Introductory Approach to Risk Visualization as a Service” [2]: This paper introduces the Risk Visualization as a Service (RVaaS) and presents the motivation, rationale, methodology, Cloud APIs used,

operations and examples of using RVaaS, which offers a structured way to deploy low cost, high quality risk assessment and support real-time calculations.

"Block-level De-duplication with Encrypted Data" [6]: Deduplication is a storage saving technique whereby duplicate data uploaded by different users are stored only once. Unfortunately, deduplication is not compatible with encryption. This paper proposes ClouDedup, a secure and efficient storage service, which guarantees block-level deduplication and data confidentiality at the same time without significant impact on overall storage and computational costs.

"Measuring and analyzing German and Spanish customer satisfaction of using the iPhone 4S Mobile Cloud service" [3]: In this paper, Organizational Sustainability Modeling (OSM) is proposed as a technique for measuring customer satisfaction analysis in the Mobile Cloud, an emerging area in the Cloud and Big Data Computing. The paper includes case studies using consumer data from Germany and Spain showing there has been a decline in the satisfaction ratings in both countries due to the recent economic downturn and competition in the market.

"Evaluation of Node Failures in Cloud Computing Using Empirical Data" [1]: Desktop Clouds represent a new type of Cloud computing, which merges Cloud and volunteer computing. However, since the resources used are not dedicated, they can be volatile; they can leave without warning. This paper uses metrics applied to real data to study the impact of such node failures and proposes several allocation mechanisms to ameliorate these effects.

"An Analytical Model of Multi-Core Multi-Cluster Architecture (MCMCA)" [4]: The use of multi-cored processors in computing clusters permits increased performance without increasing heat and power usage, which has become a major concern with conventional processors. This paper presents an analytical model of a novel architecture for interconnection within and between clusters built using multi cored processors.

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