BENEFITS OF USING SOFTWARE WITH SIK COMPLIANT ARCHITECTURE IN CLOUD

Vasile AVRAM

Ph.D., professor, Academy of Economic Studies, Bucharest, Romania
vasileavram@ie.ase.ro

Abstract: The aim of this paper is to investigate the main benefits that can be obtained by using a SIK (software inherited knowledge) compliant architecture for cloud services and support software used to build, administer and maintaining the cloud. It introduces the basic building blocks for cloud computing together with the main categories of cloud services. For the SIK architecture, shown in connection with a semantic-web application architecture, are introduced the main functionalities. The paper outlines then the main benefits different categories of users may have from both cloud and SIK compliant architecture for the cloud services delivered onto, for extensive knowledge management, and for creating the base for semantic-web for the modeled domain, the software oeration and usage, and automated administrative tasks for the cloud.

Keywords: software inherited knowledge, SIK, cloud-computing, knowledge management

Bibliography:

1. Allemang, Dean. and Hendler, James.Semantic Web for the Working Ontologist: Modeling in RDF, RDFS and OWL, Elsevier, Morgan Kaufmann Publ, ISBN-13: 978-0-12-373556-0, pp 1-178, 2008.
2. Antoniou, Grigorios. and van Hamerlan, Frank Semantic Web Primer, Second Edition, The MIT Press, Cambridge Massachusetts, London, England, pp 1-185, 2008.
3. Avram, Vasile. Should software architecture change to adapt to the knowledge era?, Proceedings of the 4th International Conference Knowledge Management - Projects, Systems and Technologies, Academy of Economic Studies and the National Defense University 'Carol I', Edited by Toma Plesanu and Luiza Kraft, ISBN: 978-973-663-783-4, pp 75-77, Bucharest, Romania, pp 75-78, 2009.
4. Avram, Vasile. The Acquisition and Sharing of Domain Knowledge Contained in Software With a Compliant SIK Architecture, Proceedings of the 11th European Conference on Knowledge Management, Universidade Lusíada de Vila Nova de Famalicão, Famalicão, Portugal, Edited by Eduardo Tome, Published by Academic Publishing International, ISBN 978-1-906638-71-9, pp 19-26, 2010.
5. Cardoso, Jose. (ed.) Semantic Web Services: Theory, Tools, and Applications, IGI Global, pp 1-21, 2007.
6. Chorafas, Dimitris N. Cloud computing strategies, CRC Press, 2010
7. Rittinghouse, John W., and Ransome, James F. Cloud Computing: Implementation, Management, and Security, CRC Press, Taylor & Francis Group, Boca Raton London New York, pp. 1-259, 2010.
8. Segaran, Tobie, Evans, Colin and Taylor, Jamie Programming the Semantic Web, O'Reilly, pp 1-126, 2009.