World Academy of Science, Engineering and Technology
International Journal of Computer and Systems Engineering
Vol:14, No:09, 2020

Towards a Common Architecture for Cloud Computing Interoperability

Authors : Sana Kouchi, Hassina Nacer, Kadda Beghdad-bey

Abstract : Cloud computing is growing very fast in the market and has become one of the most controversial discussed developments in recent years. Cloud computing providers become very numerous in these areas and each of them prefers its own cloud computing infrastructure, due to the incompatibility of standards and cloud access formats, which prevents them from accepting to support cloud computing applications in a standardized manner, this heterogeneity creates the problem of interoperability between clouds, and considering that cloud customers are probably in search of an interoperable cloud computing, where they will have total control over their applications and simply migrate their services as needed, without additional development investment. A cloud federation strategy should be considered. In this article, we propose a common architecture for the cloud that is based on existing architectures and also the use of best practices from ICT frameworks, such as IBM, ITIL, NIST, etc., to address the interoperability of architectures issues in a multi-cloud system.

Keywords : cloud computing, reference architecture, interoperability, standard
Conference Title : ICCCSS 2020 : International Conference on Cloud Computing and Services Science
Conference Location : Dublin, Ireland
Conference Dates : September 24-25, 2020