World Academy of Science, Engineering and Technology
International Journal of Information and Communication Engineering
Vol:12, No:09, 2018

Consolidating Service Engineering Ontologies Building Service Ontology from SOA Modeling Language (SoaML)

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Abstract : As a term for characterizing a process of devising a service system, the term ‘service engineering’ is still regarded as an ‘open’ research challenge due to unspecified details and conflicting perspectives. This paper presents consolidated service engineering ontologies in collecting, specifying and defining relationship between components pertinent within the context of service engineering. The ontologies are built by way of literature surveys from the collected conceptual works by collating various concepts into an integrated ontology. Two ontologies are produced: general service ontology and software service ontology. The software-service ontology is drawn from the informatics domain, while the generalized ontology of a service system is built from both a business management and the information system perspective. The produced ontologies are verified by exercising conceptual operationalizations of the ontologies in adopting several service orientation features and service system patterns. The proposed ontologies are demonstrated to be sufficient to serve as a basis for a service engineering framework.

Keywords : engineering, ontology, service, SoaML
Conference Title : ICSOC 2018 : International Conference on Service Oriented Computing
Conference Location : Osaka, Japan
Conference Dates : September 13-14, 2018