Genetic algorithms-based quality of service service selection in cloud computing using multilayer perceptron

ABSTRACT

There exist many similar services by different service providers available within the cloud environment. When the service offerings are packaged with similar functionalities, service consumers will be having a difficult time in evaluating the most relevant services that fit to their individual requirement. To address this issue, this paper proposes an effective services classification in cloud environment, which will classify the equivalent services based on their quality of service (QoS). The attribute selection method is based genetic algorithms (GA) and is designed to rank the cloud services before the attributes are being fed into a multi-layer perceptron (MLP) classification system. The results have shown a considerably high performance of 98.5%.

Keyword: Attribute selection; Cloud computing; Genetic algorithm; MLP; QoS