Software Engineering Seminar (WS 2015)

Checking Energy-Consumption of Clouds

Description

The usage of cloud computing resources grows steadily. There are already big data centers consuming the same amount of energy as a small city. It means that the contribution of the data centers to the global carbon emission becomes more and more significant. Hence there is a need for green computing where one tries to reduce the wasted energy by running unused resources.

CloudSim is a simulation framework which allows to test different usage scenarios and configurations at different aaS-levels without having a real cloud infrastructure.

The aim of the seminar is to provide a small overview of some power management strategies for cloud systems at the IaaS-level, to implement at least two of them on CloudSim, and to evaluate based on one power consumption metric.

The provided literature can be seen as a starting point and it is expected to extend the literature search and present a coherent view on the current state of the art in this area.

References


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