A Comparative Study of Code Offloading Techniques and Application Partitioning Methods in Mobile Cloud Computing

Abstract

Mobile cloud computing allows the execution of computation-intensive applications of mobile devices in computational clouds, and this process of executing in cloud by sending the application VM/Components is called application/code/component offloading. Offloading is an effective method to save the execution time and energy consumption of mobile devices. Thus it extends the battery life of mobile devices. Applications are first partitioned into offloadable and non-offloadable components, which are then transferred to remote server for execution. The objective of this paper is to explore the different techniques of offloading and application partitioning methods. These techniques are thoroughly reviewed in this paper. This paper also highlights the comparison of different techniques on the basis of their contribution, merits, demerits and also on the basis of improvement in execution time, energy consumption, communication time.
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Index Terms

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Keywords

Application Partitioning, Code Offloading, Mobile cloud computing, Energy Consumption, Execution Time