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(57) Abstract :

Improvements in vehicle node processing, storage, and communication capabilities have envisioned a mobile computing platform called the vehicle cloud. It can be used to improve traffic safety and other services by leveraging underutilized resources of the vehicle. The growing number of interactive applications and services is pushing the boundaries of vehicle on board computing resources and moving towards the idea of offloading computing to cloud computing infrastructure. Genetic algorithm was used for solving the above case. The cost of determining an optimal solution using existing design using Genetic algorithm is high. In order solve the above, we have developed a system that adaptively outsources specific vehicle applications to the cloud. This developed system implements a cloned cloud framework aimed at improving the performance of mobile devices by offloading intensive components to the cloud server threads that continue on the server and outsourcing the computation. The framework is based on migrating VM instances to cloud servers. We have also designed scheduling algorithms to address these epic task scheduling challenges in the cloud. Incoming tasks are grouped and prioritized according to task requirements such as minimum run time and minimum cost. Resource selection is based on task constraints using the greedy approach. The TCS scheme uses the Triangular Construction (TCC) algorithm to subdivides the cloned network triangular topologies. The newly developed low cost TCC algorithm will be useful for getting the exact target clone for clone migration.

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