

Resource Allocation in Vehicular Cloud Computing Systems with Heterogeneous Vehicles and Roadside Units

ABSTRACT

Many countries have strived for possible practical applications of intelligent transportation systems (ITS). By ITS, the government can reduce risks of accidents on roads, and the transportation industry can provide sound service quality and operational efficiency through advanced information transmission. As traffic safety and logistics efficiency have received much attention, lots of research has focused on advances in the technologies of vehicular networks integrated with cloud computing and communication.

EXISTING SYSTEM

In Existing System, Vehicular ad hoc networks (VANET) were proposed for providing the abilities of network connectivity and real-time information sharing among vehicles. The existing works on VCC systems are divided into five categories: security and privacy, data aggregation, energy efficiency, interoperability, and resource management. The work in investigated the problem of safety and privacy arising from practical applications of VCC systems, and proposed some strategies for addressing the problems of privacy leaks of road users and authentication of high-speed moving vehicles. the work in integrated trajectory data of taxis in real world to establish a model that can evaluate and forecast the serviceability of mobile vehicular cloudlet.

DIS ADVANTAGES

- Problems of privacy leaks of road users.
- Lead to more service requests.

PROPOSED SYSTEM

In Proposed System, an SMDP model for resource allocation in the VCC system that considers heterogeneous vehicles and integrates V2V and V2I, to meet the practice. Introducing heterogeneity of vehicles and RSUs makes the model becomes increasingly complex, in which much more system states of the VCC system need to be considered, and the transition among

states requires more computation and restrictions. Simulation shows that the SMDP for the system provides a promising approach for allocating resources in the system.

ADVANTAGES

- Redundant power consumption and transmission delay time can be saved.
- The ability of transmitting data.

SYSTEM REQUIREMENTS

H/W System Configuration:-

Processor	-	Pentium –III
RAM	-	256 MB (min)
Hard Disk	-	20 GB
Key Board	-	Standard Windows Keyboard
Mouse	-	Two or Three Button Mouse
Monitor	-	SVGA

S/W System Configuration:-

Operating System	:	Windows95/98/2000/XP
Application Server	:	Tomcat5.0/6.X
Front End	:	HTML, Jsp
Scripts	:	JavaScript.
Server side Script	:	Java Server Pages.
Database	:	MySQL 5.0
Database Connectivity	:	JDBC