Enhanced OWL-S Semantic Web Services for Traffic Management System Utilizing Internet of Things

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Abstract

IoT is a distributed physical network could support in various services, such as communications integration, control and information-processing via numerous transportation systems. It is an application extends to all aspects of transportation systems such as the vehicle, the infrastructure, and the driver or user.

In this paper, we approach integration of Intelligent Traffic Management Systems and IoT from semantic service viewpoint. We create the architecture system of web services based on OWL-S in IoT environment and describe the composition web service based on IoT. We have extended this web services to real-time extensions that can describe the application related to real-time management of the vehicle traffics. To validate our system, we proposed case study for Ambulance Vehicle. This case of study shows the use of the timing and extended real-time features for web service description and the related process ontology generated for OWL-S technology.
References

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Index Terms

Computer Science  Information Sciences

Keywords

Traffic Management System; Semantic Web Service; IoT; OWL-S;