Context Information Acquisition for Ubiquitous Connectivity System

Andrei HOSU, Iustin-Alexandru IVANCIU, Zsolt POLGAR, Virgil DOBROTĂ

Abstract

Intelligent Transportation Systems mostly rely on the concept of ubiquitous connectivity, in order to allow the implementation of smart services in this area. The connectivity provision of the transport services is a challenging task due to the different deployed wireless access technologies and to the fact that the connectivity must be provisioned in various mobility scenarios. Also new architectural elements are needed in order to enable the interoperability between the existing heterogeneous networks. The paper proposes an architecture for providing ubiquitous connectivity for vehicular applications and presents the context information constituent elements and a method for the context information acquisition process. The context information represents a basis for any ubiquitous connectivity system, so the system can sense the surrounding environment and take the best decisions regarding the network connectivity.

Biography

Andrei-Ciprian HOSU is a MSc. in telecommunications student at the Technical University of Cluj-Napoca, institution which released his BSc. in telecommunications diploma. His research interests include wireless heterogeneous networks and handover mechanisms.

Iustin-Alexandru IVANCIU is a MSc. in telecommunications student at the Technical University of Cluj-Napoca, institution which released his BSc. in telecommunications diploma. His research interests include active network measurements and cloud computing.

Andrei HOSU, MSc. Student Technical University of Cluj-Napoca Faculty of Electronics, Telecommunications and Information Technology George Barițiu street, no. 26-28, 400027 Cluj-Napoca, ROMANIA E-mail: Andrei.Hosu@com.utcluj.ro Manuscript received on May 14, revised on October 24, 2013