

An integration of mobile motion prediction with dedicated solicitation message for seamless handoff provisioning in high speed wireless environment

Abstract

Wireless mobility seems to be transforming the communication industry, shifting the momentum from internet access to broadband wireless access. This technology-shifting has been expected to provide a better communication services in return. The ability to transfer communication at extremely high speeds and the ability to stay connected during a fast movement speed should always be applicable for the upcoming and future technology. This involves addressing the challenge of maintaining the Quality of Service (QoS) in wireless high speed movement environment. This paper presents a method employing dedicated solicitation message for supporting fast mobile node's switching process while moving between heterogeneous Access Routers (AR). Simulation of the proposed method show substantial performance improvement for one of the Mobile IP's enhancement scheme known as SIGMA. The proposed method has been integrated with our previous enhancement method on SIGMA known as Mobile Motion Prediction and the performance of the integrated approach demonstrates an overall improvement.