The Study of SIP Seamless Handover with The RTP Extension Message in A WLAN Environment

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ABSTRACT

The Session Initiation Protocol (SIP) is an application-layer protocol for creating, modifying, and terminating media sessions with one or more participants. However, in the WLAN environment, the mobility management of SIP voice sessions becomes an important issue. The SIP mobility was proposed for the SIP voice session mobility problem. However, the SIP mobility has the disadvantage of the long SIP signaling delay which significantly degrades the quality of voice communications. In this paper, we propose and simulate a handover method to reduce the SIP signaling delay. The proposed method requires the correspondent node (CN) to estimate the round-trip times between the correspondent node and different APs. Then, according to the estimated round-trip times, the mobile node switches to the target AP at an appropriate time. The simulation results demonstrate the feasibility of our proposal.

Keywords : Session Initiation Protocol ; ICMP ; RTP ; Wireless Local Area Network ; handover ; seamless handover

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