Researches of Fast Handover Mechanism in Cellular IP

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ABSTRACT

Mobile IP is the proposed standard for supporting Macro-Mobility network. However, using Mobile IP in Micro-Mobility network leads to the frequently handover, long handoff delay, and significant pocket drop. Accordingly, The complicated Mobile IP scheme disagrees with Micro-Mobility network. There are many proposals have been presented to cope with the problems of Macro-mobility network, such as Cellular IP, Hawaii and MIPv4 Regional Registration. Some drawbacks of these methods like packet loss and long Handover delay, which are unacceptable in many real-time applications like VoIP and Video stream, have been addressed. We present the Novel Semisoft Handover Mechanism (NSHS) that introducing a buffer in new Base Station (BS) to reduce the packet-loss and the packet-delay of handover process. The result of simulation shows that the mechanism we proposed is better than the classical Cellular IP in packet loss, packet delay and Handover delay.

Keywords : Mobile IP,Cellular IP,Micro-Mobility,Handover

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