

Mobile IP In Heterogeneous Networks

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Abstract

The heterogeneous network has been a topic of intense interest because of the desire to provide a WLAN and 3G cellular integration networking technique to users who need high speed wireless connectivity anytime anywhere. The Mobile IP protocol is a key solution for transparent, seamless communication in heterogeneous networks. The power of Mobile IP is that it is independent of the lower layer access technologies, such as 3G cellular and WLAN. It enables higher layer protocols to maintain their session during a handoff, which results in high quality mobility.

The main motivation for this paper is to introduce the concept of mobile IP and related issues. In section 1, we give the big picture of integration of 3G and WLAN heterogeneous networks. Section 2 discusses problems in supporting mobility for IP-based applications. Section 3 discusses the basic concepts and operation of Mobile IP. Section 4 compares IP Mobility Protocols. Section 5 discusses Network Address Translator (NAT) and Network Address Port Translation (NAPT) traversal for Mobile IP. Section 6 discusses firewall traversal for Mobile IP. Section 7 discusses AAA aspects of Mobile IP.