

Review on mobility management for future-IP-based next generation wireless networks

ABSTRACT

The mobility support protocols are separated by two categories; First, Host-based mobility management protocols such as Mobile IPv6, and its enhancements (HMIPv6 and FMIPv6) which all basically requires protocol stack modification of the mobile node in order to support them. That modification may increase the complexity on them and wasting of air resource. Besides, some drawbacks that still suffers such as high handover latency, energy consumption, packet loss, and signaling overhead. Secondly, Network-based localized mobility management such as Proxy Mobile IPv6 that attract a fair amount of critical attention in the Internet communities. The serving network handles the mobility management on behalf of the mobile node. Thus the mobile node is not required to participate in any mobility related signaling. In this paper we investigate the two categories and explore the technology aspects. Description of IEEE 802.11 access network handover management was also reviewed. In addition, a comparison for existing mobility management protocols was presented for a better analysis. Furthermore, related research issues and challenges that facing mobility management are also identified.

Keyword: IPv6; Host-based mobility; Network based mobility; MIPv6; PMIPv6; Handover latency