Abstract

Proxy Mobile IPv6 (PMIPv6) is a protocol for building a common and access technology independent of mobile core networks, accommodating various access technologies such as WiMAX, 3GPP, 3GPP2 and WLAN based access architectures. Transient Binding is a mechanism applicable to the mobile node’s inter-MAG handover while using a single interface or different interfaces. Proxy Mobile IPv6 (or PMIPv6, or PMIP) is a network-based mobility management protocol. This paper proposes an improvement of Proxy Mobile IPv6 in the aspect of reducing packet loss and handover latency. Proxy Mobile IPv6 also implements additional features not present in IPv4. This paper proposes an improvement in the Proxy Mobile IPv6. The extension of Proxy Mobile IPv6 with transient binding will support multihoming and optimizes the handover. Here the handover problem in multihoming is reduced by transient binding by using modified Local Mobility Anchor (m-LMA) with its updated Binding Cache Entry (u-BCE). Also this mechanism efficiently supports the uplink and downlink packets between mobile nodes, so it avoids superfluous packet forwarding delay and packet loss.
An Extension of Proxy Mobile IPv6 for Reducing Handover Latency and Packet Loss using Transient Binding

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Index Terms

Computer Science

Communication Systems

Keywords

PMIPv6  transient binding  multi-homing  m-LMA  u-BCE  m_MAG  handover
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