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Development of an enhanced scheme for NEMO environment (Conference Paper)

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Abstract

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The frequent change of Mobile Node (MN) location is going to increase rapidly as everything is a mobile presently. In order to achieve seamless mobility, mobility managements are considered as very important. The mobile IPv6 MIPv6 is proposed and standardized by IETF. It is introduced to improve the host mobility management. However, it faces different problems when mobile nodes move between different network infrastructures. To overcome these issues, proxy mobile IPv6 PMIPv6 is introduced. PMIPv6 is a network based mobility management intended to improve handover delay by functioning mobility managements on behalf of mobile node. However, PMIPv6 added additional cost to the network by implementing mobile access gateway and bi-directional tunnel. In addition, network mobility, NEMO standardized as extension to enhance MIPV6 to support session continuity to the Internet services on behalf of mobile network nodes. Nevertheless, there are still issues of packet loss and handover delay during the registration of MNNs and handoff of NEMO. The research within this area is very active, trying to solve these problems by integration of different mobility management's schemes. In this paper, we have focused on evaluating different integrations of mobility managements with NEMO. Then we proposed a BUNSD-LMA scheme, to solve the problem of packet loss and handover delay, by integration of PMIPv6 with NEMO BS, using pre-registration of MNP (HNP) in advance with short time in binding update extensions message option format. © 2014 IEEE.

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BUNSD MR NEMO PMIPv6

Indexed keywords

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