An Efficient Multicast Scheme in the Nested NEMO

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Abstract
Sharing communications are not easy to do in the mobility networks (MONETs) for the limited bandwidth and the overhead of tunneling. Multicast is an intuitive method to solve this problem. To improve the performance, the multicast topology should be redesigned for the MONETs. We proposed an efficient communication algorithm with multicast schemes in a network mobility (NEMO) environment. The Mobile Router Forwarding Scheme (MRFS) algorithm is proposed for this goal. We can find that MRFS can reduce the storage cost for every Mobile Router (MR) especially in the TLMR (Top level MR).

Keyword : Network Mobility (NEMO), mobility network (MONET), Mobile Router (MR), Multicast.

1. Introduction
The integrating of Internet and mobile communications, provided the users to be able to access the internet services anytime and anywhere, is an important issue for mobile computing. The traditional IP protocol is designed for transferring data in a fixed location. The mobile IP, proposed by the internet engineer task force (IETF), is designed to deal with the mobile user to get the internet service by using tunneling technique. To enhance the number of the wireless hops, the network mobility (NEMO) provides a scheme to access the internet service by multi wireless hops. Internet scheme of NEMO is based on the mobile IPv6 [6]. The NEMO is concerned with the mobile networks (MONETs) can attach to the Internet by the mobile routers (MRs). The access router (AR) is the access node of the wired Internet for the wireless nodes. MR_HA, the home agent of MR, is the communication agent of MR in the wired Internet for communication with the correspondent node. MN_HA, the home agent of MN, is the communication agent of MN in the wired network for communication with the