

# Load Sharing and Session Preservation with Multiple Mobile Routers for Large Scale Network Mobility

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## Abstract

By means of **network mobility (NEMO)** support, users can organize their various communication devices into a network, called a **mobile network**. In a mobile network, the **mobile router** provides the connectivity to the Internet and mobility management transparency for the rest of the mobile nodes in the mobile network. So, it is important for the mobile router to assure reliable communications and a high data rate for the group of nodes behind it. In support of broadband wireless communications, the use of multiple mobile routers would allow the transfer of large volumes of data to a group of mobile nodes. This paper addresses the protocol issues arising from the use of multiple mobile routers, and analyzes the influence of mobility on load sharing and session preservation when there are multiple mobile routers. Simulation results with different configurations show that session preservation and load sharing schemes are influenced by application mobility behavior and wireless access technologies.

**Key words.** Network mobility (NEMO), Mobile router (MR), Load sharing, Session preservation, IPv6