

Web of Science

Search

Search Results

My Tools ▾

Search History

Marked List

 Look Up Full Text


Save to EndNote online ▾

Add to Marked List

1 of 1

A Numerical Framework for the Analysis of Handoff Delay Component in Proxy NEMO Environment

By: [Islam, S](#) (Islam, Shayla)^[1]; [Hashim, AHA](#) (Hashim, Aisha-Hassan A.)^[1]; [Abdullah, A](#) (Abdullah, Azween)^[2]; [Hasan, MK](#) (Hasan, Mohammad Kamrul)^[1]

[View ResearcherID and ORCID](#)

INTERNATIONAL JOURNAL OF FUTURE GENERATION COMMUNICATION AND NETWORKING

Volume: 9 Issue: 8 Pages: 45-54

DOI: 10.14257/ijfgcn.2016.9.8.05

Published: AUG 2016

Abstract

Network Mobility Basic Support Protocol (NEMO-BSP), the existing IETF standard for mobile network support, signifies an important portion for future heterogeneous wireless access networks. The reason is to provide continuous Internet connectivity during movement of Mobile Router (MR) in NEMO. This paper conducted a quantitative analysis on the handoff delay component of NEMO-BSP as well as its existing enhancements, i.e., Fast NEMO (F-NEMO) handoffs, and an Extension of F-NEMO (EF-NEMO), using the numerical framework. The mathematical scenario includes two access routers, one local home agent and up to 20 MRs that interrelate by two different wireless access networks are mainly WiFi and WiMAX. The analysis offers quantitative outcomes of the performance enhancements achieved via the proposed improvements concerning handoff delay gain, packet loss, and packet loss ratio. The numerical results assist in understanding the influence of link switching delay, mobility rate, and radius on the handoff delay gain, packet loss, and packet loss ratio. The results of this analysis will also be aided to pick an appropriate mobility management scheme for Proxy NEMO environment.

Keywords

Author Keywords: NEMO-BSP; F-NEMO; heterogeneous wireless access networks; handoff delay component

KeyWords Plus: NETWORK MOBILITY

Author Information

Reprint Address: Islam, S (reprint author)

+ Int Islamic Univ Malaysia, Fac Engr, Jalan Gombak, Kuala Lumpur 53100, Malaysia.

Addresses:

+ [1] Int Islamic Univ Malaysia, Fac Engr, Jalan Gombak, Kuala Lumpur 53100, Malaysia

+ [2] Taylors Univ, SOCIT, Jalan Taylors, Subang Jaya 47500, Selangor, Malaysia

E-mail Addresses: iium19612@hotmail.com

Publisher

SCIENCE & ENGINEERING RESEARCH SUPPORT SOC, RM 402, MAN-JE BLDG, 449-8 OJUNG-DONG, DAEDOEK-GU, DAEJON, 00000, SOUTH KOREA

Categories / Classification

Research Areas: Telecommunications

Web of Science Categories: Telecommunications

Citation Network

0 Times Cited

[13 Cited References](#)

[View Related Records](#)



[Create Citation Alert](#)

(data from Web of Science Core Collection)

All Times Cited Counts

0 in All Databases

0 in Web of Science Core Collection

0 in BIOSIS Citation Index

0 in Chinese Science Citation Database

0 in Data Citation Index

0 in Russian Science Citation Index

0 in SciELO Citation Index

Usage Count

Last 180 Days: 0

Since 2013: 0

[Learn more](#)

This record is from:

Web of Science Core Collection
- Emerging Sources Citation Index

Suggest a correction

If you would like to improve the quality of the data in this record, please [suggest a correction](#).

Document Information

Document Type: Article

Language: English

Accession Number: WOS:000389142700006

ISSN: 2233-7857

Other Information

IDS Number: ED8TB

Cited References in Web of Science Core Collection: 13

Times Cited in Web of Science Core Collection: 0

