

Advances in Mobility Management for IP Networks

Editors:

Aisha Hassan Abdalla Hashim

Othman Khalifa

Shihab A. Hameed



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TABLE OF CONTENTS

No.	Title	Page No.
	Acknowledgement	v
	Preface	vi
	Part 1: Internet Engineering Task Force (IETF) Approaches for Multicast and Mobility Management	1
1	Introduction to Multicast Mobility Management Aisha Hassan Abdalla Hashim, Shihab A. Hameed, Jamal Ibrahim Daoud	2
2	Research Direction in Mobile IPv6 Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim, Sellami Ali, Wajdi Al-Khateeb	9
3	Operation of Context Transfer Protocol Aisha Hassan Abdalla Hashim, Othman Khalifa, Azana Hafizah Mohd Aman, Farhat Anwar, Shihab A. Hameed	15
4	The Study of Multicast Hierarchical Mobile IPv6 Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim, Akram M. Zeki	21
5	The Study Of Multicast Listener Discovery Aisha Hassan Abdalla Hashim, Imad Fakhri Taha Alshaikhli, Azana Hafizah Mohd Aman, Sellami Ali	27
6	MIPv6 Based Approaches for Mobility Management Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim, Imad Fakhri Taha Alshaikhli	32
7	HMIPv6 Based Approaches for Mobility Management Aisha Hassan Abdalla Hashim, Wajdi Al-Khateeb, Farhat Anwar, Azana Hafizah Mohd Aman	36

Part 2: Extensions to Mobile Multicast Schemes

8	Introduction to Mobility Multicast Schemes Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman, Sellami Ali, Othman Khalifa	42
9	Qualitative Study of Mobility Management Approaches Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim, Imad Fakhri Taha Alshaikhli, Farhat Anwar	48
10	Architecture of M-HMIPv6/CXTP Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	53
11	Intra Domain Movement of M-HMIPv6/ CXTP Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	58
12	Inter Domain Movement of M-HMIPv6/ CXTP Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	64
13	Message Format of M-HMIPv6/CXTP Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	70
14	Signaling Flow of M-HMIPv6/ CXTP Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	76
15	Development of the Service Recovery Time and Signaling Cost Function Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	83
16	Evaluation Methods in Computer Networking Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	88
17	Ns2 Simulation Environment in M-HMIPv6 Omer Mahmoud, Azana Hafizah Mohd Aman	93
18	Service Recovery of Multicast Hierarchical Mobile IPv6 with Context Transfer Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	101
19	The Study of Signaling Cost Of M-HMIPv6 with Context Transfer Aisha Hassan Abdalla Hashim, Azana Hafizah Mohd Aman	106
20	Simulation Study of HMIPv6 And M-HMIPv6/CXTP Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	112

21	Packet Loss in M-HMIPv6 with Context Transfer Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	118
22	Evaluation of Handover Latency in M-HMIPv6 with Context Transfer Azana Hafizah Mohd Aman, Aisha Hassan Abdalla Hashim	124
23	Future Directions Azana Hafizah Mohd Aman, Omer Mahmoud, Aisha Hassan Abdalla Hashim	128
24	MIPv6 Extensions Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Omer Mahmoud, Md. Rafiqul Islam	133
25	IP Multicast Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Md. Rafiqul Islam, Rashid Abdelhaleem Saeed	139
26	Mobility Approaches to Support IP Multicast Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Rashid Abdelhaleem Saeed, Omer Mahmoud	144
27	Hierarchical Mobile Multicast Context Transfer (HMMCT) Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Omer Mahmoud, Rashid Abdelhaleem Saeed	152
28	Simulation Evaluation of HMMCT Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Omer Mahmoud, Rashid Abdelhaleem Saeed	157
29	Analytical Study of HMMCT Abdulrhman Mohammed Bin Mahfodh, Abdi Nasir Ahmed, Aisha Hassan Abdalla Hashim, Faiz Ahmed Mohamed Elfaki, Rashid Saad	165
Part 3: QoS Approaches		
30	Introduction to QoS Approaches in Mobile Ad Hoc Networks Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh, Akram M. Zeki	171

31	Routing Protocols For Ad Hoc Wireless Networks	176
	Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh, Gharib Subhi Mahmoud Ahmed	
32	Quality of Service (QoS) Issues In Manets	181
	Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh, Jamal Ibrahim Daoud	
33	Supporting QoS Multicast Routing Over Mobile Ad Hoc Networks	186
	Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh	
34	Position-Based Routing Protocols For Ad-Hoc Networks	191
	Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh	
35	Simulation in Wireless Networks: An Overview	196
	Mohammad Qabajeh, Aisha-Hassan A. Hashim, Othman Khalifa, Liana Qabajeh , Faiz Ahmed Mohamed Elfaki	

INTER DOMAIN MOVEMENT OF M-HMIPv6/CXTP

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12.1 INTRODUCTION

As mobile technologies are beginning to get popular, supporting handover across different types of access networks is considered a clear challenge. It is difficult to support seamless handover between domains. To address those challenges, it is important to provide inter domain mobility in an optimized and secure movement flow.

Inter domain movement means that the node changes its attachment point between two different *networks*. Handover occurs when the node changes its point of attachment after an *interdomain movement*. In an inter domain handover of Multicast Hierarchical Mobile Ipv6 (M-HMIPv6) [1], when a Mobile Node (MN) entering next Multicast Mobile Anchor Point (M-MAP) domain, it needs to update its Multicast Listener Discovery (MLD) [2] context with the next M-MAP. This is the same with M-HMIPv6 with Context Transfer Protocol (CXTP) [3] support, except that M-HMIPv6/CXTP [4] provides predictive handover scheme for better performance.

12.2 INTER DOMAIN MOVEMENT

The MN handover operation flow for predictive handovers environment by Hugo Santos [5] is shown in Fig. 12.1 While the M-HMIPv6 handover is shown in Fig. 12.2. The M-HMIPv6/CXTP [4] handover environment is shown in Fig.12.3. The multicast direction starts from M-MAP to mobile node.