

Advances in Mobility Management for IP Networks

Editors:

Aisha Hassan Abdalla Hashim

Othman Khalifa

Shihab A. Hameed



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ANALYTICAL STUDY OF HMMCT

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29.1 INTRODUCTION

This chapter describes the simulation as an evaluation approach to validate the proposed protocol. In the second parts, the simulation scenario and the assumption made are discussed followed by a discussion for the performance metrics: those performance metrics are the measures of the performance of the proposed architecture. The performance metrics which have been chosen are the packet loss, throughput, and latency. In the last part, the result and analysis would be discussed and compared to our benchmark which is the BT.

29.2 ANALYTICAL STUDY

Fig. 1 shows delay versus time graph. This graph shows the delay of both HMMCT and the BT, where the x axis labeled as the simulation time and the y-axis as the delay. From the graph, it is noted that the BT has higher delay than the HMMCT. This delay keeps increasing as the time increases. This is due to the encapsulation and the encapsulation process.

At the beginning of the simulation, the delay is same and BT has this small delay because MN is in the home network. Yet, when the MN handoff to another network there is encapsulation process which causes the delay. As the distance increases between the MN and the HA, the delay keeps increasing. However, in HMMCT, the movement is localized and hence the MAP is acts as the HA. By this we can have very small delay. Therefore, HMMCT has better performance in term of delay.