

Advances in Mobility Management for IP Networks

Editors:

Aisha Hassan Abdalla Hashim

Othman Khalifa

Shihab A. Hameed



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INTRODUCTION TO MULTICAST MOBILITY MANAGEMENT

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1.1 OVERVIEW

This part of the book provides a systematic and rigorous investigation of the Internet Engineering Task Force (IETF) approaches for multicast and mobility management. Firstly, the concept of multicast mobility management is introduced together with the research directions in Mobile IPv6. The authors elucidate on the operation of context transfer protocol and provided a comprehensive study of multicast hierarchical mobile IPv6. In addition to this, a study of multicast listener discovery is provided and this book part concludes with MIPv6 and HMIPv6 based approaches for mobility management.

With the fast progress of mobile technologies and its environments, the importance of improving the existing mobility management increases. This includes mobile multicast technologies. Among the challenges in mobile multicast are the routing issues, receiver issues, source issues and deployment issues.

Multicast is defined as the delivery of data to a set of selected receivers. Multicast provides an effective group communication mechanism in Internet Protocol (IP) layer to reduce the redundant packets. Fig. 1.1 is an example of multicast topology.

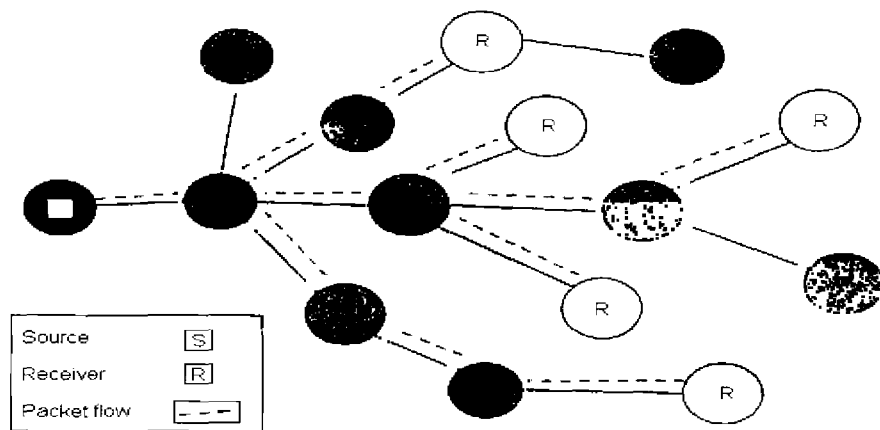


Fig. 1.1: Multicast Topology [1].