MULTIMEDIA MULTICAST ON THE INTERNET

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Description

Multimedia Multicast on the Internet examines multicast technology and is a key text for undergraduate engineering students and master students in networks and telecoms. However, it is equally useful for a wide range of professionals in this research field.

Multicast routing was introduced with the advent of the multipartite applications, for example, videoconferencing on the Internet, and collaborative work such as distributed simulations. It is related to the concept of group communication, a technique introduced for reducing the communication cost.

The various problems of multicast routing on the Internet are examined in detail. They include: group membership management, quality of service, reliability, safety, scalability and transport. Throughout the text, several protocols are introduced in order to analyze, compare and cover the various aspects of multicast routing.

Contents

2. Hierarchical Multicast Protocols with Quality of Service – Abderrahim Benslimane and Omar Moussaoui.
5. End-to-End Approaches of supporting reliability – Vincent Roca.
7. Congestion Control in Multicast Communications – CongDuc Pham and Moufida Maimour.
10. Secure Multicast Communications – Melek Önen, Refik Molva and Alain Pannetrat.

Author Information

Abderrahim Benslimane is Professor of Computer Science and Engineering at the University of Avignon, France. Currently, he is responsible for the masters programme in networks, telecoms and multimedia. He is team leader of the computer networks and multimedia applications research group. His research and teaching interests are group communication protocols, quality of service in wired and mobile networks and inter-vehicular communication. He is author of several refereed publications in these areas, as well as being involved in related scientific projects.