Foreword

In recent years, peer-to-peer (p2p) multimedia streaming has aroused much interest both in research communities and in industries. In a p2p streaming system, multimedia contents are delivered to a pool of distributed users with low delay and high quality. Fueled by advances in networking and compression technologies, p2p multimedia streaming has experienced initial deployment success for applications such as Internet TV, video conferencing, and surveillance.

A scalable peer-to-peer multimedia system should support many hosts, possibly in excess of hundreds or even millions, with diverse heterogeneity in bandwidth, capability, storage, network, and mobility. It should also be able to support and handle various applications and file formats under dynamic user arrival and departure, frequent host failures and unavailability, and unpredictable network traffic and congestion. In a p2p streaming networks, users should be able to share, search, and access contents in a distributed and efficient manner. To achieve these goals, it is particularly important to address the challenges in architecture design, network/transport support, resource discovery and content delivery mechanisms.

This peer-to-peer multimedia streaming workshop, held in conjunction of ACM Multimedia 2005, is to address many important issues as given above to support scalable peer-to-peer streaming services. We received many papers addressing fundamental, theoretical and practical issues in peer-to-peer streaming. The papers selected in the workshop represent a good range of topics of interest to both research and industrial communities.

We hope that you would enjoy this workshop by mingling with the researchers and practitioners in the area, exchanging emerging ideas on efficient media distribution and content searching, and sharing your experience in peer-to-peer system development and prototypes. We believe that through such interaction, we can make commercial deployment of peer-to-peer system pervasive and feasible.

Last but not least, we would like to thank all the TPC members who helped us to review the submitted papers and offered their valuable comments. Without them, the workshop would not be a success.

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