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Preface

Solutions for efficient delivery of Internet traffic over fixed and wireless networks attract attention of researchers, network designers and operators. Modern computer networks have to provide differentiated services, dependent on traffic profiles. During the last decade a lot of Internet research has been devoted to provisioning different quality of service (QoS) to applications. Two major QoS-oriented Internet architectures were defined: IntServ—offering per flow service and DiffServ—more scalable and offering rich service granularity.

Current research activities concentrate on a few important topics, including traffic routing algorithms, design of core networks and IP QoS mechanisms. There is a growing interest in devising bandwidth sharing algorithms in the new Internet architecture, so as to ensure high bandwidth utilization while maintaining some notion of fairness.

Recently, a tremendous increase in Internet traffic has been observed. Both corporate and individual users demand more bandwidth and more functions with QoS guarantees. This is accompanied by growing demand for cellular, WLAN and access systems. WLANs supporting broadband multimedia communications, are being developed and deployed around the world. WLAN standards include ETSI HIPERLAN/2 and the IEEE 802.11 family.

This special issue of *Journal of Telecommunications and Information Technology* covers all these subjects. It contains a selection of papers presented at the 2nd Polish-German Teletraffic Symposium.

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