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IntServ6: an approach to support QoS over IPv6 wired and wireless networks

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Abstract

In this paper we propose a new approach for Quality of Service (QoS) support on Internet. This approach, named IntServ6, is based on the Integrated Services Architecture (ISA). It takes advantage of the IPv6 header flow label field to improve a set of the standard ISA properties such as reservations within tunnels, flows aggregation and interconnection with MPLS transport networks. IntServ6 can be used for QoS support in IPv6 wired and wireless networks. This paper describes the IntServ6 operation and performance evaluation over both environments. Evaluation results show that this approach has a better router performance with respect to the standard IntServ. Thus, IntServ6 reduces the mean packet delay and reduces the packet delay dependence with the mobility. Copyright © 2007 John Wiley & Sons, Ltd.