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Title: QoS provisioning over Wireless All-IP Networks

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Abstract
Quality of Service (QoS) is a fairly ambiguous concept developed with the aim of providing end-to-end service guarantees over the Internet. Two schools of thought have been developed in order to facilitate QoS: The Differentiated Services Model (DiffServ) used in core networks; and the Integrated Services Model (IntServ) deployed in private access networks. Since core networks are currently providing excess amounts of bandwidth, they do not pose a significant hindrance to the end-to-end service guarantees as opposed to the access networks. Hence, QoS-related research has lately shifted towards this particular segment of the end-to-end path. Moreover, with the emerging need for wireless connectivity a bigger burden has been added due to the continuous movement of the wireless devices; thereby verifying the need for a scalable QoS mechanism to manage the scarce wireless resources. Route reSerVation Protocol (RSVP) is considered a mature reservation protocol in wired-networks.

It accomplishes QoS guarantees through explicit reservations of network resources to particular sessions. RSVP however, can not be directly implemented in wireless networks due to the high latency experienced in re-establishing an RSVP session after a handoff. The purpose of this research is to address this requirement by developing algorithms that would support QoS guarantees and minimise the session re-establishment delay through integration with Mobility functions.

About the speaker
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