

Abstract of the student research project

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Diploma year	2004
Title of the student research project	Policy Based Networking for Voice over IP
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<p>Abstract</p> <p>There exist several standards how to implement QoS in a network (e.g. DiffServ). There are also protocols to setup a VoIP session (e.g. SIP). But there's still a lack of interaction between these two mechanisms.</p> <p>Our work describes proposals made for the implementation of Quality of Service in a Policy Based Network using the Session Initiation Protocol (SIP).</p> <p>There are two approaches how QoS can be signalled using SIP. The concept of the IETF approach is to let the terminals reserve the bandwidth resources they need. Therefore the SIP user agents must include a QoS protocol such as RSVP.</p> <p>The idea of the Q-SIP approach is to eliminate the need for a specific QoS protocol in the terminals and to move all QoS related functions to a local SIP proxy.</p> <p>The practical part of the project was the setup of a test environment using DiffServ in order to show the difference between QoS enabled and QoS disabled VoIP streaming. The demo environment couldn't be setup properly because of insufficiently documented and inadequate software used.</p> <p>As a matter of fact, it might still take a remarkable amount of time until QoS-assured VoIP solutions will be established.</p>	