Thesis Title Call Request Delaying Method for QoS aware Network

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ABSTRACT

This thesis proposes a new theme of call admission control mode called "Call Request Delaying Method" (CRDM) that could improve call blocking rate, call attempt waiting time and call admission control signaling traffic in QoS network, especially in saturated situation. The CRDM was designed to handle new incoming call requests instead of reject them when the request bandwidth is still not available. The call request holding time for a new released bandwidth could be estimated by traffic descriptor of the present active connections. We also improved the original CRDM by add delay technique on resource allocation process. The modified CRDM has shown its performance on call blocking rate reduction approximate 56.232 % from the CRDM while induce a little bit more on waiting time delay. By applying this delaying method, we can show the improvement of call blocking rate, call attempt waiting time and call admission control signaling traffic through simulation results compared to the traditional call admission control (CAC) model on IntServ over DiffServ framework.