

DiffServ Overlay Multicast for Videoconferencing

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ABSTRACT

In this dissertation a framework for implementing videoconference in a DiffServ network (DiffServ Overlay Multicast) is proposed. DiffServ Overlay Multicast uses an overlay multicast algorithm for calculating the multicast tree for distributing the video in a DiffServ network. By moving tree construction, packet replication and network monitoring to the edge routers, a stateless core is maintained. This dissertation also addresses all the issues concerning the integration of DiffServ and IP Multicast. In addition the issue of traffic engineering and load balancing in the network to improve the quality of videoconference is also addressed.