

Research and installation of the Diffserv model in ensuring the quality of service for MPLS networks based on the NS2 simulation software

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Abstract: This topic focuses on researching and deploying the Differentiated Services (Diffserv) model to improve the quality of service in Multiprotocol Label Switching (MPLS) networks. The context of the topic emphasizes the practical necessity of Diffserv to ensure quality of service for applications requiring low latency. The main objective is to build and install an NS2 simulation system to evaluate the performance of Diffserv in MPLS networks. The research methodology includes theoretical analysis of Diffserv, experiment design on the NS2 simulation software, and deployment of experimental scenarios. Expected results will demonstrate the effectiveness of the Diffserv solution in managing MPLS network traffic, making a significant contribution to the field of transport network research.

Keywords: Diffserv, MPLS, NS2 simulation, quality of service, transport network