

Research on routing algorithms over MPLS

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Abstract: This topic aims to research and develop optimal routing algorithms for Multiprotocol Label Switching (MPLS) networks. In the context of rapid data network growth, ensuring service performance with high traffic volume is a challenge that cannot be ignored. The main objective of this research is to build a dynamic routing system for MPLS capable of optimizing transmission paths based on factors such as latency, bandwidth, and quality of service. The approach includes using mathematical models to analyze current performance and develop new algorithms, combined with experimental deployment to verify effectiveness. Through this, the topic hopes to contribute useful solutions for improving MPLS networks and meeting practical needs in the field of data transmission.

Keywords: MPLS, routing, optimization algorithm, quality of service, transport network