## Annotation

The diploma work consists of 85 pages, 32 figures, 2 tables, 13 references

The purpose of this work is to analyze the MPLS technology, make a proposal to build a basic telecommunications network based on MPLS technology and analyze the operation of such a network.

The thesis analyzes and compares modern networks that are used. Consideration of the principles of formation of MPLS network, interaction of MPLS network with IPv4 network. GMPLS network analysis and construction were also performed.

Keywords: MPLS, LDP, OSPF, BGP, LSP, tags, LSP paths, LSR.