

Annotation

In this thesis work investigated the concept of software-configured networks (SDN). An analysis of the SDN network architecture and comparison with the traditional network architecture is carried out. The aspects of ensuring information security in SDN networks and the ways of their implementation are investigated. The development and modeling of the SDN network segment based on the Oracle VM VirtualBox virtualization platform has been carried out. During the simulation, the functionality of the SDN controller was considered and the mechanism for providing a secure communication channel was implemented. The results of development and modeling confirm the relevance of the use of software-configured networks and the possibility of ensuring their reliable and safe operation.