

**Subject of graduate qualification work:** The organization and technologies of a workplace of the transactor in the protected network on a basis a blockchain on the example of OOO “Sigma-Service”.

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**Data on the organization customer:** OOO “Sigma-Service”.

**The relevance** of work consists that at the moment in Russia there is a problem in the academic field of software copyright protection of developers and also the perspective Blockchain technology is inadequately lit. In this work advantages and shortcomings of technology at introduction to the academic field of legal protection of information and also creation of the automated workplace of the subscriber of network are lit.

**The purpose** to develop the automated workplace for the transactor of the blockchain network, providing protection of copyright provided that the transactor isn't an expert in the field of cryptography.

The goal defines the following tasks:

1. Acquaintance with structure of branch.
2. Analysis of hardware-software and technical equipment of establishment.
3. Development of recommendations about improvement of protection of copyright of developers of OOO “Sigma-Service”.
4. Creation of a blockchain network, development of models of network transactors.
5. The analysis of the existing threats of transactors of classical model of network and development of technology of a workplace of the transactor.

**The theoretical importance of work** – the analysis of a classical blockchain model on existence of shortcomings and accounting of specifics of a scope is carried out. The analysis of modern cryptographic methods for improvement of the network algorithms.

**The practical importance** - the description of the cryptographic algorithms chosen for improvement of network and their design realization.

**Results of a research:**

We suggest to connect department of development to a blockchain network of legal information protection. This technology is suitable for this.

In the analysis of shortcomings of the classical blockchain network model's shortcomings and the acceptability of technology use of the academic field of copyright protection have been revealed, by all the criteria the technology is found acceptable. In sphere of software copyright protection blockchain base won't be such huge, as in the financial sphere as transactions are carried out much less often. The problem of confidentiality is solved by storage not of the most source code of the program, and storage its hash function.

For a solution of the empty method connection problem between the transactor user and the transactor who is building in the block into network was offered to create the protected VPN or https. For the solution of such problems as the weak algorithm of hashing and the empty password is offered not to store the closed key in memory of the device and to calculate it for what the algorithm of delivery of the closed keys has been improved. The new algorithm will allow the user to calculate value a hash function from three numbers which it is easier to remember, than 256-symbolical value of a hash function. The complexity of an algorithm provides his cryptofirmness and protection against the widespread attacks of the malefactor.

**Recommendations:**

Now software developers need improvement of system of copyright protection. The offered technology will help with the solution of this problem, however it is new and demands development of acts for her regulation.