

ANALYSIS AND IMPLEMENTATION OF USER AUTHENTICATION MEANS

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Abstract

The concepts of authentication, authorization and identification are considered, their types are considered and their shortcomings are pointed out. The implementation of the system of authentication and authorization for programs that will have limited access in use.

Keywords: authentication, automated systems, security, information technology.

Introduction

In today's world, automated systems are used everywhere, which have grown to a very serious scale and cover almost all stages of life of people, companies and enterprises. In general, such systems consist of personnel and a set of tools to automate its activities and implement information technology to perform the established functions. One of the most difficult areas for the implementation of automated information systems is working with electronic document management.

The result of research

Information technology, software implemented in the information system can increase the efficiency of staff, in the case of proper organization of interaction between people and automated information systems. But this is accompanied by many shortcomings that need to be corrected to prevent mistakes, but before that, you need to make sure that this system works with a person who has the permission and the necessary skills.

The subject of the review is the authorization process. Subject of work - authorization and authentication systems.

After analyzing the different types of authentication, identification and authorization, we can conclude that the two-factor authentication method using user biometrics and the trilateral authentication method, which uses a third party trusted party to verify identity, are best.

After assessing the financial capabilities and needs of the program to be protected from unauthorized access, it was decided to make a two-factor authentication, eliminating the problem of cost.

Two-factor authentication methods are obtained by combining two different one-factor methods, most often identification and logical. For example: "password + floppy disk", "magnetic card + PIN".

Each class of methods has its advantages and disadvantages. Almost all authentication methods have one drawback - they do not actually authenticate a specific entity, but only capture the fact that the entity's authenticator matches its identity. That is, all known methods are not protected from compromising the authenticator.

It was decided to specify the hashed serial number of the flash drive, as well as the user's login and password as an identifier, implementing the method of mandated access control.

As a result of the authorization implemented in the program, the user only needs to connect the "flash drive" to the computer on which he will work to log in to the system. In this case, this process, depending on the quality of the connection, will take from 0.5 to 2.0 seconds, which is almost invisible and at the same time meets all the requirements of safety and convenience during operation.

Conclusion

According to research, it is established that the software product in development will solve the problem. Further development of the software product is considered relevant. The implementation of the system of authentication and authorization of the program was completed in full and showed good results.

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