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Innovative Technologies used to Ensure Financial Security

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Abstract: *The article considers an overview of innovative technologies used to ensure financial security. The principle of operation of innovative technologies used to ensure financial security (such as Web application protection, Anti-fraud solutions, Blockchain) and the scope are described in detail.*

Keywords: *Financial security of enterprises, Web application protection, Antifraud, Blockchain, business processes, companies, customer data.*

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Introduction.

With the development of information technology, there is a gradual improvement and creation of new tools to ensure financial security. At the same time, any technologies in this industry are designed to solve the following applied tasks to ensure the financial security of enterprises:

1. Protection of information arrays of organizations (we are talking about web resources, information assets, etc.).
2. Ensuring the security of customer data.
3. Protecting the company's image.
4. Prevention of information leaks for external and internal reasons.

Consider currently relevant information technologies used to ensure the financial security of enterprises.

Protecting Web Applications.

There are technologies aimed at protecting specialized resources. An example of such a technology is the Web Application Firewall, or Web application protection technology to ensure the financial security of enterprises. Today, many organizations, regardless of the industry, conduct their business using web applications. Among other things, this was a consequence of the conditions of the coronavirus pandemic.

The essence of the technology lies in the location of the protection system within the information flow from web application visitors to the server on which the application is located. In accordance with the above structure, traffic passes through the Web Application Firewall technology. The established system requirements form the criteria for the system to detect activity that can harm the financial security of the enterprise. If such a threat has been detected, the system issues a notification about a potential threat or, in certain configured cases, blocks traffic [1].

Web Application Firewall technology is a firewall capable of performing the following tasks to ensure the financial security of enterprises:

- prevention of intruders making changes to the site architecture;
- protection against targeted impacts on web applications in order to cause financial damage (or protection from attacks);
- prevention of unauthorized actions with the organization's databases.

The functionality of the technology under consideration is shown in Figure 1 [2].

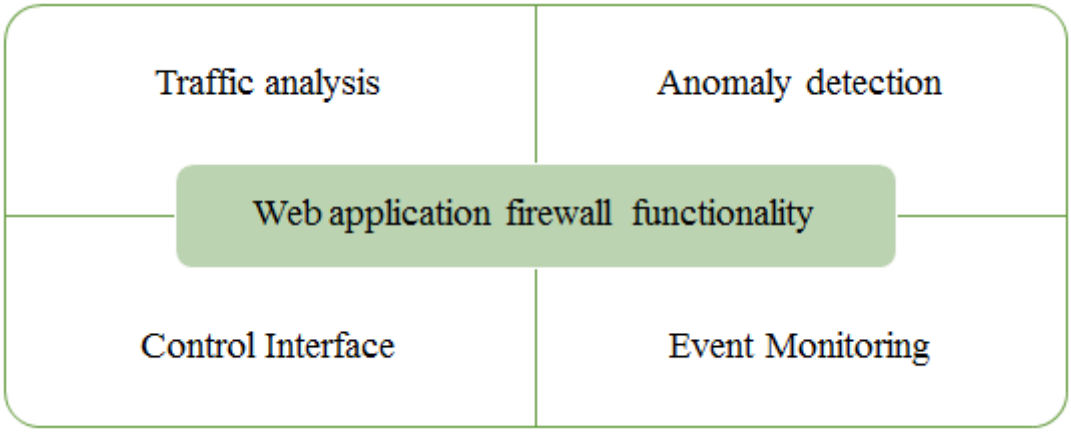

Figure 1 - Web application firewall functionality

Within the framework of the first block (traffic analysis), it is meant to display actual requests, decrypt traffic and analyze it in accordance with the requirements.

Within the framework of the second block (anomaly detection), the definition of anomalies in traffic according to the developed model, attack detection is implied.

Within the framework of the third block (management interface), a graphical reflection of the model of the application and the control system is implied.

The fourth block (event monitoring) implies systematization of events, collection and display of up-to-date statistics.

Web Application Firewall technology can be applied in various industries, however, we note that the use of this technology is more relevant for the field of e-commerce to ensure the financial security of enterprises, that is, for companies that interact with customers using Web applications. The introduction of technology into the information infrastructure of an organization can be carried out in the form of a special device or software product.

CONCLUSION

The use of information technologies to ensure the financial security of organizations is a promising direction in the development of science in Uzbekistan. The trend towards an increase in the number of fraud incidents based on identity theft is being discussed by the scientific community. It is noted that the development and application of new technologies, including artificial intelligence technologies, require the consolidation of the legal side of the issue.

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