

INFORMATION TECHNOLOGY PLATFORM FOR ARMS TRADE

Based on the postulate that the arms trade is generally a complex, specific and multifaceted field of activity, which includes the production, distribution, sale and use of various types of weapons and military equipment. In this context, the authors of the article proposed the development of an innovative information technology platform for accounting and analysis of arms trade processes, which takes into account the peculiarities of domestic legislation.

It was noted that the use of blockchain technology on the information and technological platform of weapons sales is aimed at increasing security and tracking the full set of transactions, reducing risks and ensuring maximum transparency of processes. It is assumed that each stage of the life cycle of weapons, starting from design, production and ending with sale, will be recorded by blockchain methods and means. Information about the manufacturer, the date of manufacture, transportation, purchase and acceptance of the weapon by the customer will be recorded in the blocks. With the use of an information technology platform, the validity of licenses will be checked with each transaction, ensuring the legality of the sale and taking into account the unique characteristics of each weapon unit. The information technology platform will store information about transactions, including price, date and participants, smart contracts, etc.

Development of an information technology platform that is conveniently integrated into the system of international standards and regulators, as well as meets numerous specific requirements and restrictions on arms trade.

The authors of the article claim that the use of cryptography in blockchain technology provides reliable encryption and protection of confidential information, which is critical in a sensitive subject area such as the arms trade, and also contributes to a significant increase in the level of security, transparency and trust among participants in this specific industry.

The conducted analysis confirms the expediency of using the potential of blockchain technology to optimize and increase the efficiency of the accounting of arms trade processes, as well as to ensure the reliability and safety of the functioning of the innovative information technology platform.

Keywords: blockchain, information technology platform, arms trade, smart contracts

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ІНФОРМАЦІЙНО-ТЕХНОЛОГІЧНА ПЛАТФОРМА ТОРГІВЛІ ЗБРОЄЮ

Базуючись на постулаті, що торгівля зброєю – є загалом складною, специфічною і багатогранною сферою діяльності, яка включає виробництво, розподіл, продаж та використання різноманітних видів зброї та військової техніки. У цьому контексті авторами статті запропоновано розроблення інноваційної інформаційно-технологічної платформи обліку та аналізу процесів торгівлі зброєю, яка враховує особливості вітчизняного законодавства.

Відзначено, що використання технології блокчейн на інформаційно-технологічній платформі продажу зброї спрямоване на підвищення безпеки та відстежування повної множини транзакцій, зменшення ризиків та забезпечення максимальної відкритості процесів. Передбачається, що кожен етап життєвого циклу зброї, починаючи від проектування, виробництва та закінчуючи продажем, зафіксуватиметься методами та засобами блокчейні. У блоках фіксуватиметься інформація про виробника, дату виготовлення, транспортування, придбання та прийняття зброї замовником. З використанням інформаційно-технологічної платформи перевірятиметься чинність ліцензій при кожній транзакції, забезпечуючи легальність продажу та враховуючи унікальні характеристики кожної одиниці зброї. Інформаційно-технологічна платформа зберігатиме інформацію про транзакції, включаючи ціну, дату та учасників, смарт-контракти та ін.

Розроблення інформаційно-технологічної платформи, яка зручно інтегрується в систему міжнародних стандартів та регуляторів, а також відповідає чисельним специфічним вимогам та обмеженням на торгівлю зброєю.

Автори статті стверджують, що використання криптографії в технології блокчейн забезпечує надійне шифрування та захист конфіденційної інформації, що є критичнозначимим в чутливій предметній галузі, якою є торгівля зброєю, а також сприяє значному підвищенню рівня безпеки, прозорості та довіри в середовищі учасників цієї специфічної галузі.

Проведений аналіз підтверджує доцільність використання потенціалу технології блокчейн для оптимізації та підвищення ефективності обліку процесів торгівлі зброєю, а також для забезпечення надійності та безпеки функціонування інноваційної інформаційно-технологічної платформи.

Ключові слова: блокчейн, інформаційно-технологічна платформа, торгівля зброєю, смарт-контракти.

Introduction

Arms trade is a complex and multifaceted field of activity, which includes the production, distribution, sale and use of various types of weapons and military equipment. This field has its own characteristics, which are determined by its social, political and ethical context. Regulation of the arms trade is one of its most important features. In most countries of the world arms trade is regulated by legislation that establishes rules and restrictions on the production, export, import and circulation of arms. This regulation is aimed at ensuring public safety and preventing illegal arms trade. Competitiveness of the arms trade is its another important feature. The arms market is quite competitive, and there are various companies that offer a wide range of products and services. This competition causes development of innovations and lowering of weapons prices. Arms are a potentially dangerous commodity; arms trade may be linked to illegal activities such as smuggling or terrorism financing. Therefore, the development of an information technology platform for accounting for the circulation of weapons in the legal field of Ukraine is an important and urgent task.

State of the issue research

A number of studies are devoted to the issue of arms trade. V. S. Arus notes that the revolutionary changes that are currently taking place in the technique of warfare can significantly affect the nature of arms trade. In the opinion of the researcher, among the new important technologies, information systems, including modern sensors, communication and data processing, advanced modeling methods should be singled out. This approach will change the international arms trade. Although specialized defense machinery will remain, dual-purpose equipment will become increasingly important to the effectiveness of advanced military forces. As a result, it will become more difficult to track arms trade processes by only analyzing the transfer of major types of weapons [1].

A study by Wang, X.-Y., Chen, B. and Song, Y. proposed using a temporal exponential random graph model to analyze the effect of endogenous network structure and attributes of 47 major arms trading countries from 2015 to 2020.

The results of the study demonstrate that the international arms trade market is unevenly distributed and there are significant differences in military technology. There is a fixed hierarchical structure in the arms trade. International relations concerning the arms trade are dominated by economic, political, security and strategic factors. Therefore, countries strive to improve their economic power and military technology. In addition, the countries seek to increase mutual trust and gain a foothold in the industrial chain of weapons production [2].

Elias Yousif and William Marshall note that new technological solutions will contribute to the ability to meet the growing global demand for weapons, and to ensure the control of arms circulation. According to the researcher, the application of distributed ledger technology to regulate commercial ecosystems will contribute to helping governments, industry and other interested parties to ensure the security, to arrange international arms transfers and to increase their transparency, reducing the burden of responsibility and mitigating the risks of loss or diversion of arms.

Distributed ledger technology will facilitate the optimization of data exchange and authentication between interested parties. All participants will be able to share this register, which will simplify information flows and will shorten administrative processes. All participants agree to share information according to specific guidelines adopted by the group consensus, while each participant or group keeps ownership of its own data [3-5].

The purpose of this study is to analyze the requirements for an information technology platform for the arms trade procedure accounting.

The object of the study is the processes of accounting for arms trade procedures.

The subject of the study is the methods and means of accounting for arms trade procedures.

Challenges in the current system of control over the sale of arms

Modern arms sales systems are complex systems that are constantly increasing and becoming more complicated due to the impact of changes that are taking place in world trade and require strengthening of measures to control processes and procedures in chains of arms supply and information exchange.

Arms transfer procedures generate a huge amount of data that, due to commercial necessity and compliance with regulatory requirements, needs to be protected. Data includes confidential information that may contain trade secrets, normative information, or information concerning national security. This information is extremely important to the evaluation and implementation of procedures necessary for the sale of arms in compliance with the requirements of legislation. Considering the volume and specifics of the necessary information, which requires analysis, systematization and ensuring access to it without compromising security, it is necessary to create an information technology platform for the use of big data processing technologies. At the same time, there must be confidence that the data remains error-free and protected from tampering or improper use.

Methods of Developing an Information Technology Platform for Arms Trading

Today, there is no doubt about the necessity of developing an information technology platform for arms trading. The functioning of the information technology platform is aimed at making trading more transparent by providing access to information about transactions, participants, and assets. The platform should automate and optimize trading processes to make it more economical and minimize risks associated with trading, such as fraud, money laundering, and unauthorized access to weapons.

For the development of the information technology platform, it is advisable to use a range of technologies, including:

- Blockchain.
- Internet of Things.
- Artificial intelligence methods.

Blockchain Technology

Blockchain will be used to ensure transparency, immutability, and security of data. Blockchain technology is a distributed database consisting of blocks, each of which contains a list of transactions and a link to the previous block. It first appeared as the core technology behind the cryptocurrency Bitcoin, but has since found a large number of applications outside of finance [5-8].

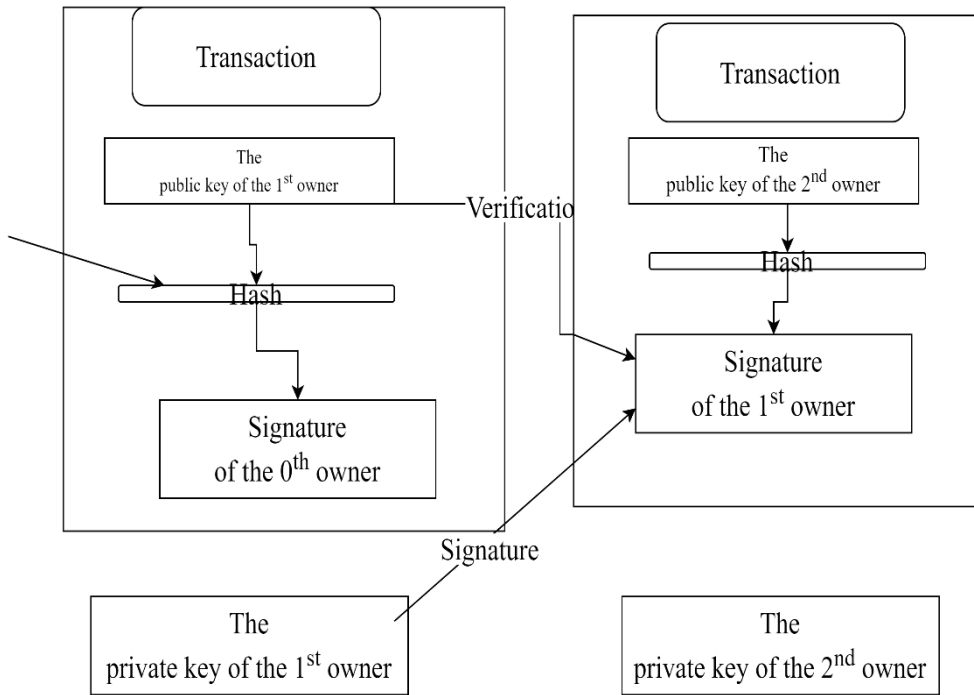


Fig. 1. Conceptual scheme of Bitcoin transactions registration

Decentralized networks facilitate transparency and openness, as each participant has the ability to verify the state of the system and transactions. It can also help democratize network decisions. Decentralization can make the network more resistant to different types of attacks, since it is distributed among different nodes, and a successful attack would have to affect a larger number of nodes.

A mathematical model for describing information stored in a distributed ledger (blockchain) can be the expression:

$$I_i = f(B_1, B_2, \dots, B_n)$$

where:

- I_i - information stored in a distributed ledger;
- B₁, B₂, ..., B_n - blocks in a distributed ledger;
- f - the function of combining (composing) blocks.

This formula indicates that the information in the distributed ledger is presented as the result of a function that combines (composes) data from all network blocks. Each block *B_i* contains a certain amount of information, and the function *f* is responsible for how this data is combined together.

Undoubtedly, at this stage, it is advisable to choose a blockchain platform. Among the main options to consider are:

- Ethereum platform with a large ecosystem of smart contracts.
- Hyperledger Fabric, a private platform suitable for consortia with high confidentiality requirements.
- R3 Corda, a platform developed for financial institutions with an emphasis on confidentiality and regulatory compliance. During the research, a detailed analysis of each of them will be conducted to choose the best one for developing the information technology platform for arms sales.

To ensure data security, data encryption technologies will be used to protect against unauthorized access, access control to restrict access based on roles and permissions, and security audit to regularly check for vulnerabilities. Such an approach will contribute to secure arms trading, and the use of blockchain technology will ensure transaction security.

Among the advantages of using blockchain, the following should be highlighted:

- Transparency. All transactions on the platform will be publicly available, allowing for tracking the origin of weapons and preventing illegal trading.
- Security. Data on the blockchain is protected by cryptography, making it resistant to hacking and falsification.
- Efficiency. Blockchain can automate many processes related to arms trading.

Possible uses of blockchain:

- *Weapon registry creation.* All units of weapons can be registered on the blockchain, allowing their movement to be tracked and preventing illegal circulation.

- *Buyer verification.* Blockchain can be used to verify the identity and purchasing rights of weapon buyers.
- *Supply chain management:* Blockchain can be used to track the movement of weapons from manufacturer to end user.
- *Smart contract creation.* Smart contracts can be used to automate processes related to weapon trading, such as payment and delivery.

Challenges of using blockchain:

- *Regulation.* Governments may not allow the use of blockchain for weapon trading.
- *Technical complexities.* Developing and implementing a blockchain platform for weapon trading can be a challenging task.
- *Adoption.* Sellers and buyers of weapons may not be ready to use a blockchain platform.

Using smart contracts to automatize sales processes

Shall we consider an example of using blockchain technology to track each stage of a weapon's life cycle. Each arm unit produced is given a unique serial number and characteristics such as model, type and technical specifications. This data is recorded in a new block in the block chain.

B1=Specifications and a serial number of an arm produced

Each transaction concerning the transportation and storage of weapons is also recorded in new blocks. This may include information about departure date, route, vehicle and destination.

B2= Information on transportation and storage

When accepting a weapon to an official armory or store, a new block with data on the acceptance is recorded, as well as data on verification of licenses of purchasers or departments of responsible authorities.

B3= Information on acceptance and verification of licenses

When arm is sold, a new block with transaction details including the date of sale, the purchaser, quantity and other details is created. This information is also confirmed by the purchaser's license.

B4= Sales information

Thus, a blockchain for arms accounting might look like this:

Blockchain={B1, B2, B3, B4,...}

Each block contains information about a specific stage of the arm's life cycle, and these are gradually added to the block chain, allowing for a secure and traceable life cycle of each arm unit. This approach allows for transparency, traceability and security in the entire process of production and circulation of arms.

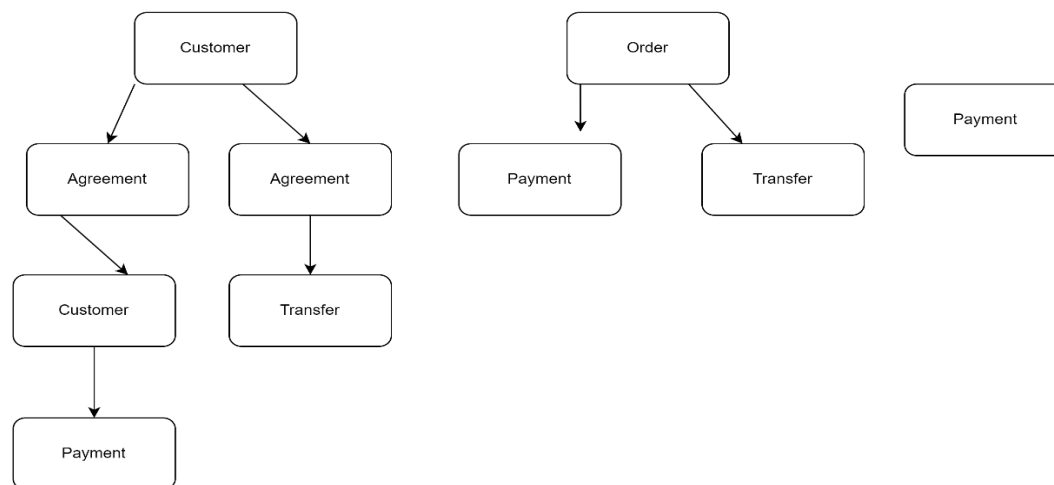


Fig. 2. Scheme of transactions with the help of blockchain in the information technology platform of arms trade

The diagram shows the three main participants in the process: the customer, the seller and the order encrypted in the blockchain.

The customer creates an application for the purchase of weapons, in which he indicates the type of weapons, quantity, price and other necessary information. The application is registered in the blockchain.

The seller accepts the request and creates a deal. The agreement contains information about the customer, seller, type of weapon, quantity, price and other necessary information. The agreement is also recorded in the blockchain.

Blockchain stores application, transaction and payment data. This ensures transparency and immutability of data.

Once the deal is done, the payment is made via the blockchain. This ensures the security and reliability of the payment.

The weapon is handed over to the customer. This process can be recorded on the blockchain to ensure transparency and accountability.

The technology works by encoding transactional data into a "hash" that is combined with other ones to form "blocks" of encrypted data that are constantly copied across the network of participants. This constant replication ensures the immutability of the blockchain signature and, combined with the algorithmic encryption of each hash, ensures that all entries are only available for addition, giving participants complete information about the history of each transaction. Thus, blockchain technology provides greater consistency and control of data across the entire ecosystem or network of participants. This is especially useful for the permit registration process, which requires real-time access to information for multiple users, and efficient data management [10].

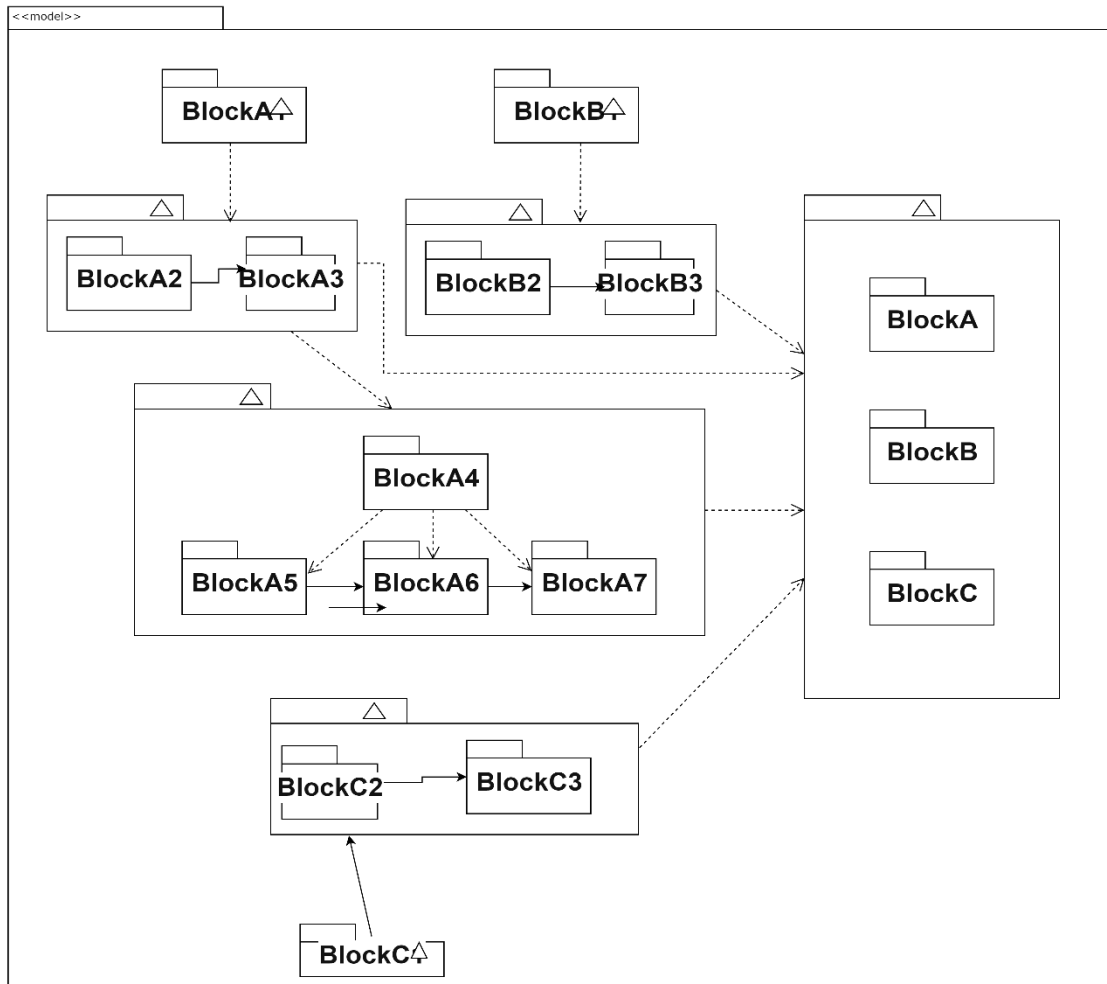


Fig. 3. Transactional Data Encoding

Functional capabilities of smart contracts:

- Buyer identity verification
- Payment tracking
- Delivery control
- Confirmation of weapon receipt

Internet of Things (IoT) Technologies

The Internet of Things will facilitate asset tracking and process automation. In the development of the firearm sales information technology platform, IoT technologies are envisaged to be used for:

Warehouse monitoring and security. IoT sensors can be installed in firearm warehouses to automatically track the quantity of available firearms and other equipment. This will accurately determine available resources for sale and promptly detect unauthorized access, losses, or theft.

Transportation monitoring of firearms. Embedded sensors in transportation vehicles can track firearm transportation routes, movement speed, and transportation conditions. This will allow monitoring the safety of delivery and timely response to any hazardous situations.

Automatic replenishment of supplies. Through IoT connectivity, the platform can automatically order new firearms or spare parts when a certain level of inventory depletion is reached. This will avoid supply delays and ensure a constant availability of necessary resources.

Remote control and management. With the IoT platform, operators can remotely monitor and manage various aspects of the firearm sales system. This may include remote locking or unlocking access to the information technology platform, firearms, setting appropriate access rights for different users, and so on.

Data analysis and forecasting. Collected data from IoT sensors can be used for analysis and forecasting of demand for specific types of firearms, inventory optimization, trend detection in usage, and more. The use of IoT can improve efficiency, security, and control in the firearm sales system.

Artificial Intelligence Methods

Artificial intelligence methods will provide data analytics, fraud detection, and demand forecasting. The use of artificial intelligence in developing the firearm sales information technology platform will promote:

Analysis of historical data. Developers analyze historical data on firearm sales, including types of firearms, sales volumes, prices, locations, and times of sales.

Demand forecasting. Using artificial intelligence, developers create a demand forecasting model for firearms based on the analysis of historical data and external factors such as the political situation, social trends, and so on.

Personalized marketing. Artificial intelligence analyzes user data, their profiles, and previous interactions with the platform to create personalized marketing offers and recommendations.

Price optimization. Artificial intelligence analyzes market conditions, competitive prices, demand dynamics, and other factors to optimize pricing strategies, considering profit maximization and competitiveness.

Fraud and abuse detection. Artificial intelligence analyzes transaction data and detects anomalous patterns that may indicate fraud or illegal activities, helping to prevent violations and ensure transaction security.

Logistics and supply chain optimization. Artificial intelligence analyzes data on logistic operations, considering traffic, road conditions, weather conditions, and other factors to optimize delivery routes and supply planning. Inventory forecasting and management.

Artificial intelligence uses forecasting algorithms to optimize inventory levels, avoiding shortages and excess inventory, which helps maintain an optimal level of inventory.

Requirements for the information technology platform for arms sales

Before formulating requirements for the information technology platform, let's analyze the peculiarities of arms trading procedures. The study of arms trade procedures involves the analysis of a number of components:

Security component. Arms trade interacts with issues of national and international security.

Geopolitical relations. The policy of arms sales affects the geopolitical landscape, relations between countries and the level of global stability.

Ethics and morality. In the arms trade, there are ethical factors related to how the arms can be used. Ethical questions arise in determining who is allowed to be supplied with weapons and under what conditions.

Economy and industry. The arms trade has a significant impact on the economy, as it is an important part of the military-industrial complex. Jobs are created to implement sales procedures, but there are also some problems concerning the economy's dependence on weapons production.

Legal and regulatory aspects. Arms trade is accompanied by a large number of legal and regulatory acts. Control over the production, transportation and sale of weapons is regulated by national and international legislation.

Innovations and technologies. The arms trade requires constant innovation and the use of advanced technologies in production. This may include the development of new types of weapons, security systems and electronic technologies.

International relations and cooperation. Many countries refrain from trading arms with certain regions or countries for political or ethical reasons. At the same time, there are international agreements and forums for cooperation and control over the arms trade.

Research in this subject area requires an integrated approach and consideration of various factors that affect this sector. To account for arms trade processes, it is advisable to develop an information technology platform with a powerful protection system built on the basis of Blockchain technology, internet of Things and artificial Intelligence.

The functional capabilities of the platform include:

- *Participant registration.* The platform should have a participant registry with identity verification and access to participant profiles.
- *Asset catalog formation.* The platform should form an asset catalog with detailed information about assets, search capabilities, and filtering options.
- *Transaction system creation.* The platform should provide a transaction system supporting various payment and delivery methods.
- *Implementation of smart contract system.* The platform should utilize smart contracts to automate agreement execution and ensure transaction security using blockchain.

• *Generation of analytical reports.* The platform should generate analytics for monitoring activities and obtaining business insights.

Every stage of a weapon's life cycle, from production to sale, can be recorded on the blockchain. Information about the manufacturer, the date of manufacture, transportation and acceptance of the weapon can be recorded in the blocks. Information about licenses and permits for weapons can be entered into the blockchain. The system can automatically check the validity of licenses with each transaction, ensuring the legality of the sale. The unique characteristics of each arm unit (such as the serial number) can be entered into the blockchain. This allows the purchaser to check the authenticity of the product and detect possible counterfeits. Transaction information, including price, date and participants, can be displayed on the blockchain. This ensures the transparency and allows automatic tracking of arm ownership. Blockchain records simplify auditing transactions and verifying compliance with regulations and requirements in the arms sales area.

We will formulate the requirements for the information technology platform for accounting for arms trade processes. The information technology platform for accounting of arms, in contrast to the information and search system [9], trade processes must meet the following requirements:

- transparency and openness of the trade processes. The platform should provide access to information on all aspects of the arms trade, including information on contracts parties, types of weapons, prices, delivery conditions, etc. This will allow monitoring compliance with international arms trade norms and preventing illegal arms circulation.
- compliance with international norms and rules. The platform should be developed considering the requirements of international treaties and conventions regulating arms trade. This will ensure compliance of trade processes with international norms and prevent the illegal use of weapons.
- security and confidentiality of information. When developing the platform, it is necessary to consider the requirements of security and confidentiality of information. This will protect information on parties of contracts, types of weapons, prices, etc. from unauthorized access.

Shall we formulate the requirements for the information technology platform for accounting the processes of arms trade, which should contain:

A register of all participants in trade processes. The register must include information on name, address, contact details, and information on licenses and permits required for the arms trade.

A register of all arms trade contracts. The register should include information about the type of weapon, quantity, price, delivery conditions, etc.

The creation of an information technology platform for the accounting of arms trade processes requires considering important aspects of security, accuracy and efficiency. Following are the main requirements for such platform:

Security and privacy. Ensuring a high level of data security, including cryptographic protection of identification information and transactions. Implementation of access control and authentication mechanisms to ensure limited access and protection of confidential information.

Effective accounting and monitoring. Implementation of a system for effective accounting of arms quantity, including production, transportation, storage and sale. Ensuring the possibility of monitoring the movement of weapons in real time to support the procedure of operational decision-making.

Integration with other systems. Ensuring compatibility and integration of the platform with other systems of security, control of the military industry and government databases. Possibility of data exchange with other national and international accounting systems.

Traceability and identification. Provision of unique identifiers for each arm unit for unique identification and traceability. The ability to track all changes in the status and location of arms.

Reporting and compliance. Development of report generation module for submission of registration documents on weapons, their condition and trade transactions. Ensuring compliance of the platform with normative requirements and international standards in the field of arms trade.

Flexibility and extensibility. Developing a flexible system that can adapt to legislative amendments and technological improvements. The possibility of easy functionality extension of the information technology platform to consider various needs of users.

Auditing and tracking changes. Implementation of an audit and change tracking system to record all users' actions for further analysis and detection of possible security breaches.

The use of blockchain technology in the development of an information technology platform requires considering the specifics of this technology and its potential to ensure security and reliability. The key requirements for such approach are provided:

Distributed database. Application of blockchain technology to create a distributed database that will ensure reliability and invulnerability to changes for all participants in the arms trade.

Smart contracts. Implementation of smart contracts for automatization and self-execution of operations such as weapons registration, transactions and reporting.

Data encryption. Using cryptography to ensure the encryption and privacy of data stored on the blockchain.

Identification and authentication. Ensuring identification and authentication of system participants using cryptographic keys to ensure transaction security.

Traceability and tracking. The use of blockchain technology to create a traceability system that allows to track the routes of movement of arms and their condition at each stage.

Decentralized access control. Implementation of blockchain-based access control mechanisms, which will ensure decentralized and secure access to information.

Backup and restore. Development of a backup system to ensure data security and recovery in case of loss or damage.

These requirements are aimed at creating a reliable and secure information technology platform that effectively supports the management and accounting of arms trade processes.

When developing an information technology platform for accounting of arms trade processes, there should be observed traceability technology as the property of object tracking or reproducibility in space and time. In the accounting processes of the logistics of supply of weapons as goods, there is a need to track the routes, condition and movement of goods or cargo from the beginning to the end of the logistics chain. It is advisable to use barcodes, RFID (radio-frequency identification) or other identification systems.

During the operation of the information technology platform for accounting for the processes of arms trade, it is necessary to constantly observe traceability technology to track challenges, errors, and changes in the software code during its development and operation.

Traceability technology helps to track the origin, movement and use of weapons or equipment for their production.

The implementation of an information technology platform for accounting of arms trade processes will increase the transparency and openness of trade processes, ensure compliance with international norms and rules, and protect the information about the parties of contracts and the conditions of arms trade [11-12].

Conceptual Model of the Firearm Sales Information Technology Platform

The result of the conducted research is the formation of a conceptual model of the firearm sales information technology platform. The main actors of the firearm sales information technology platform are:

Seller - an individual or organization selling firearms.

Buyer - an individual or organization purchasing firearms.

Platform - an online platform facilitating firearm trading based on blockchain.

Regulator - a governmental agency regulating firearm trading.

The operation algorithm of the information technology platform can be outlined as follows:

Step 1. Registration. Both the seller and the buyer register on the platform.

Step 2. Listing Creation. The seller creates a firearm sales listing, which is recorded on the blockchain.

Step 3. Listing Viewing. The buyer can view firearm sales listings available on the blockchain.

Step 4. Purchase Initiation. The buyer places an order for a firearm, which is recorded on the blockchain.

Step

5. Data Verification. The platform verifies the firearm purchase order and the buyer's eligibility using smart contracts on the blockchain.

Step 6. Payment. The buyer pays for the firearm using cryptocurrency, and the transaction is recorded on the blockchain.

Step 7. Delivery. The seller delivers the firearm to the buyer.

Step 8. Delivery Confirmation. The buyer confirms receipt of the firearm, which is recorded on the blockchain.

Step 9. Regulation. The regulator monitors and regulates firearm trading processes using data from the blockchain.

Additional terms of use for the information technology platform include:

Both the seller and the buyer must be registered on the platform.

Firearm sales listings must contain all necessary information.

The buyer must have the right to purchase firearms.

The seller must have the right to sell firearms.

Firearms must be safely delivered to the buyer.

The regulator may impose sanctions for violations of firearm trading rules.

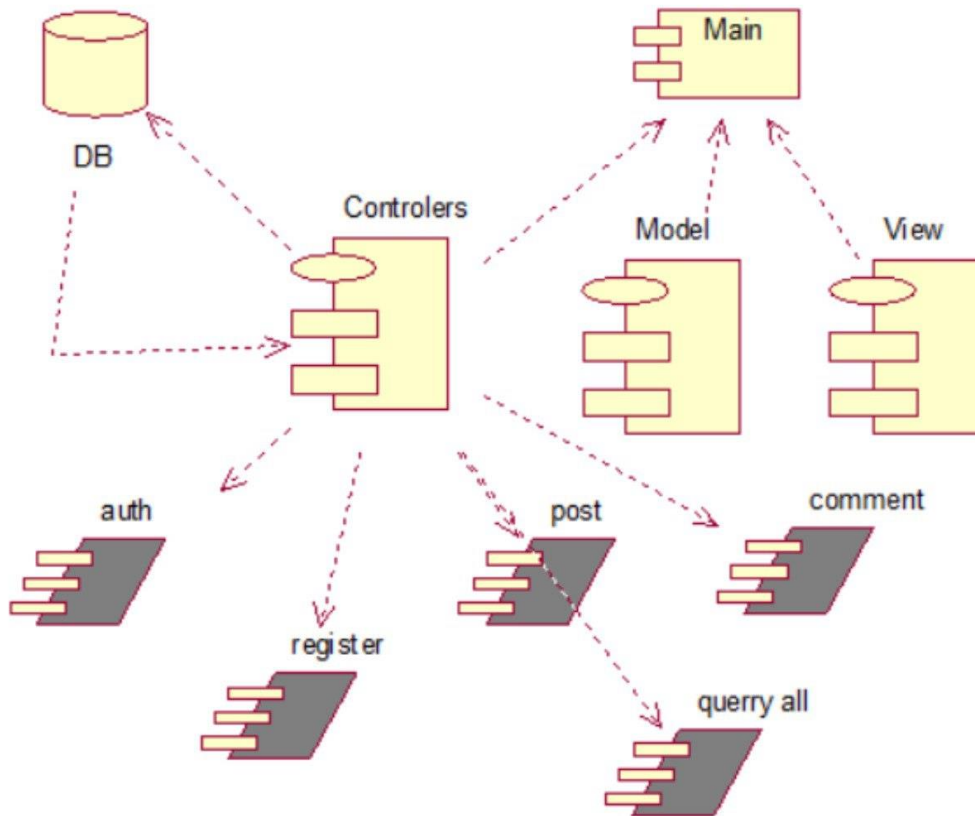


Fig.4. Information technology platform cooperation diagram

Conclusions

It has been determined that blockchain technology is a key component of the information technology platform for accounting for arms trade processes. Its decentralized and immutable nature guarantees a high level of security, reliability and traceability.

The use of smart contracts in the blockchain system has been found to automatize important operations such as arm registration, transactions and reporting, ensuring efficiency and accuracy.

The use of cryptography in blockchain technology has been found to provide reliable encryption and protection of private information, which is critically important in the sensitive arms trade area.

It is noted that the use of blockchain technology allows to achieve a high level of traceability, ensuring the tracking of routes, condition and movement of arms in real time.

It has been determined that decentralized access control mechanisms ensure security and limit access to information stored in the blockchain to only authorized users.

There has been elaborated an information technology platform that easily integrates with international standards and regulators, and meets the requirements and restrictions of the arms trade.

The use of blockchain technology will contribute to a significant increase in the level of security, transparency and trust among the area participants.

The conducted analysis confirms the expediency of using the potential of blockchain technology to optimize and increase the efficiency of the accounting of arms trade processes, and to ensure the reliability and security of the information technology platform.

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