

## **CREATION OF SPECIALIZED SOFTWARE FOR SYNCHRONIZING DATA CHANGES BETWEEN THE SMALL MANUFACTURING ENTERPRISES**

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In the manufacture of engineering products, there are their own characteristics. A company may not produce a fully finished product itself. It may hire other firms to help produce component parts. The main problem is to provide communication between small enterprises for the exchange of data. In this case, the acute question is to synchronize data for the coordinated work of virtual companies based on small enterprises on the one hand, and the protection of intellectual property of each machine-building enterprise within a vertical company on the other. Since the firm that hires other firms must be sure of the quality of the products, and the compliance with its requirements that it presents. Contractors have the full right to keep the technological features of the production secret.

It is necessary to create a data structure for storage and distribution between all existing participants.

The data structure should contain the requirements provided to the part, the technical process that will be applied to this part, and the result of the work. Therefore, the source data of the part and the result of the work must be synchronized between all participants, it is also necessary to prohibit editing this data after the approval stage.

Blockchain can help us to solve the problems posed, this technology has proven itself in banking (cryptocurrencies), but it also finds ways to apply it in other industries such as financial transactions, user identification, or the creation of cybersecurity technologies.

An application model was created and software development began directly. The main difficulty in developing the application is that there is network interaction and there is a need for encryption and data hiding to increase security. As a result of our work, software should appear that will help solve the problem of communications in small enterprises. Also, this application should increase the level of data protection and minimize the possibility of unauthorized editing.