

ECONOMY AND ENTERPRISE MANAGEMENT

MULTI-LEVEL OPTIMIZATION OF DESIGNING THE MANAGEMENT OF ECONOMIC SECURITY OF TELECOMMUNICATION ENTERPRISES

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The article develops methodological approaches to multi-level optimization of designing the management of economic security of telecommunication enterprises for challenges and inquiries of the present. The characteristic attributes of the economic security management system of telecommunication enterprises and the main shortcomings of existing methodical approaches are revealed. The author's methodical approach to obtaining a generalized indicator at multi-level optimization of designing systems for managing economic security of telecommunication enterprises is proposed, which allows obtaining effective values of the parameters of enterprise's management, taking into account resource constraints and temporal-spatial requirements.

The external parameters of management of economic security of telecommunication enterprises, which need to be taken into account, include: amount of information, delay, reliability and cost. These parameters are indicators that determine both the quality of the management system and the number of services provided. A comparative analysis of existing methods of combining conflicting criteria was conducted,

their advantages and disadvantages were investigated.

The method of combining conflicting criteria, such as the amount of control information, authenticity, delay and cost, is proposed. According to the results of the simulation, relations were obtained which bind the main criteria mentioned above. It was found that the number of indicators that characterize the quality of a real economic security management system of telecommunication enterprises can be very high. Therefore, in practice there is an optimal number of performance indicators that need to be taken into account. The introduction of additional performance indicators, does not lead to improvement, but to the deterioration of the synthesis results.

It is concluded that when multi-level optimization of the design of management of economic security of telecommunication enterprises should take into account the following indicators: the amount of control information (hence, the necessary throughput of communications and channels), which provides a given accuracy of parameters of objects of management (in this case, the minimum amount of information is deter-

mined, which allows us to have characteristics of adaptability to predicted perturbations and invariance to unpredictable factors); delay of information flows, in which the time of transfer of managerial decisions does not exceed the critical parameters; authenticity (probability of error) when passing information flows; the cost of designing an economic security management system.

The developed proposals are widely tested in the systems of economic security management by modern telecommunication enterprises of Ukraine and cover the latest business combinations. It allows on the basis of traditional equipment to carry out more effective and perfect management of economic security, which is of scientific interest and the prospect of further improvement.