USING THE INTERNET OF THINGS AT THE ENTERPRISE

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Резюме — в настоящее время цифровая трансформация стала важной составляющей успеха предприятий, стремящихся сохранить свою конкурентоспособность. Сквозные системы и инструменты цифровизации значительно автоматизируют бизнес-процессы, упрощая их, а также улучшают взаимодействие между подразделениями предприятия и оптимизируют управление ресурсами на нем.

Resume – nowadays, digital transformation has become an essential component of success for enterprises seeking to maintain their competitiveness. End-to-end digitalization systems and tools significantly automate business processes, making them simpler, as well as improving interaction between departments in the enterprise and optimizing resource management on it.

Introduction. In the modern world, digital technologies are developing rapidly, and one of the significant achievements of recent years has been the development of the Internet of Things (IoT).

The IoT concept involves creating a network of devices that collect and exchange data to make production processes more efficient. Using the IoT at enterprises opens new opportunities for optimization and control over production processes, as well as cost reduction.

Main part. Digital technologies are a set of tools that can affect all aspects of a business or individual's life. These technologies provide a wide range of different tolls for managing various processes, including analytics, communication, and automation. They also give the opportunity for the integration of different systems and data, which can maintain the successful operation of an enterprise.

The main technologies that can be used at enterprises operating in completely different industries are enterprise resource planning (ERP), customer relationship management (CRM), artificial intelligence (AI), the Internet of Things (IoT). The IoT at an enterprise can be used for a variety of purposes, such as optimizing production processes, improving product quality and reducing production costs. There are several ways of using the IoT in an enterprise.

For example, a company uses various sensors that are installed on equipment that produces products. These sensors collect information about the condition of the equipment, process it and send it to the computer to the manager, who can monitor the operation and condition of the equipment in real time, preventing breakdowns and unexpected production stoppages [1].

The IoT can also be used in dangerous enterprises to monitor the safety of employees. Special trackers are used here, which are attached to the clothes of employees, and can determine their location and mobility. Thanks to them, a manager can quickly react to an unexpected emergency and prevent accidents

with employees. On the other hand these trackers can violate personal space of employees and eventually cause discomfort in their work.

IoT systems can be used to provide better security and prevent theft at enterprises. Such trackers can be installed in large warehouses of the enterprise; therefore they will record the location of certain products that are in storage.

This system helps to speed up the processes of unloading and loading goods in the warehouse, as well as ensures their safety by using the warehouse opening hours and trackers on doors and windows. And the last example where IoT systems can be used is logistics enterprises travels. It represents GPS sensors on vehicles, which allows you to track their location in real time. This ensures more efficient management of logistics flows, reduces fuel costs, and optimizes routes, which helps to deliver goods to the consumer on time [2].

Despite the advantages of using IoT, there are several disadvantages of this system, and there are also barriers to using it in the enterprise.

The introduction of digital technologies, including IoT, requires large monetary investments, so not every enterprise can afford it.

Another disadvantage is the lack of necessary specialists who can manage these systems. In addition, due to the transmission of data over the network, there is a risk of data leakage due to cyber-attacks. A big disadvantage is the fact that it is necessary to integrate existing enterprise systems with new ones so that they function and there are no errors in operation.

Conclusion. As a result, we have come to the conclusion that the Internet of Things at the enterprise provides great opportunities for business development. This system allows not only reducing costs and improving work efficiency, but also creates the basis for innovative industrial development. The introduction of IoT requires a serious approach and attention to data security, but the advantages it provides make this technology important in today's economy.

REFERENCES

- 1. Enterprise IoT Benefits, Use Cases, and Real Examples [Electronic resource]. Access mode: https://appinventiv.com/blog/iot-in-enterprise/. Access date: 28.04.2024.
- 2. 5 примеров использования интернета вещей в промышленности [Electronic resource]. Access mode: https://b2blog.beeline.kz/IoTIndustry. Access date: 28.04.2024.