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Вплив хмарних обчислень на електронну комерцію

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Анотація
В статті йдеться про хмарні обчислення в сфері електронної комерції, про поняття хмарних сервісів й е-комерції та про переваги застосування хмарних обчислень в бізнесі.
Ключові слова
Хмарні обчислення, електронна комерція, технології, сервіси, інтернет, штучний інтелект.

Abstract
This article is about cloud computing in the electronic commerce sphere, the noting of cloud services and the e-commerce, and the advantages of using them in business.
Keywords
Cloud Computing, e-commerse , technology, services, internet, artificial intelligence.

In today's digital age, e-commerce has become an essential part of businesses. As online shopping continues to grow in popularity, businesses are turning to cloud computing to support their online operations.

Cloud computing refers to the delivery of computing services over the internet, including servers, storage, databases, software, and analytics. Instead of hosting data and applications on local servers, cloud computing allows businesses to access these resources from remote data centers. E-commerce, on the other hand, is the buying and selling of goods, products and services on the internet from any location. It encompasses a wide range of activities, including online shopping, digital payments, and online marketplaces [1].

Since cloud computing was firstly introduced by Google in 2007, it has considerably changed the way businesses approach e-commerce. By providing access to agile and flexible computing resources, cloud computing enables e-commerce businesses to handle fluctuations in traffic and demand, which can vary significantly based on factors such as holidays and promotions [2].

Let's consider some of the key advantages cloud computing provides when it comes to applying it in business:

1. Great scalability

Cloud computing has made it way easier for businesses to scale their operations and reach a wider audience. By using cloud-based platforms, e-commerce businesses can swiftly deploy new applications, services or expand data storage without having to invest in expensive hardware or software.

For instance, during coronavirus pandemic or holiday seasons the demand for purchasing goods online increases dramatically along with web traffic and user data. Such kind of events requires significant storage space and enormous processing power. Therefore, great solution for traffic spikes became cloud computing to support expanding resources for business without redundant expenses on infrastructure [3].

2. Speed

High performance and speed are one of the most crucial factor of a successful e-commerce web-site. This is all about user experience. The higher the speed and the lower latencies of the system, the more pleasant the user experience is.

Numerous independent researches and surveys have shown that the customer likely abandon the cart if it takes more than three seconds for page to load. Managing traffic fluctuations, it happens to be that your web-site can slow down or even stop responding. To resolve this critical issue cloud providers may come to your aid with their consistent cloud services [4].

Also, it's worth mentioning that if your e-commerce service is able to support high speed search engine will better perceive your web-site and provide a pleasant user experience when ranking.

3. Reducing expenses

Cloud computing offers major savings in terms of expenses on equipment and infrastructure. Companies do not have to invest money in hardware or software, since cloud services vendor manages all the expenses himself [5]. Therefore, companies can save money and spend them on some more critical developments parts, such as managing IT infrastructure, acquiring accounting software or video conferencing apps to organize company data and finances.

4. Reliable data protection

Trust is the foundation to the e-commerce model. Online shops have huge amount of confidential user information at their disposal. By providing passwords, card numbers and phone numbers, customers trust their private information. In case their data corrupts or a leak occurs, the company will instantly and irrecoverably lose their reputation [1, 3].

Fortunately, cloud services provide secure data storage as they have special policies for data protection from leaks and attacks. Moreover, cloud companies provide teams of security experts to monitor their systems for threats.

5. Efficient analytics

Cloud computing services open opportunities for their users to obtain detailed statistics and reports of large amounts of data. With the help of artificial intelligence and machine learning cloud services offer broad benefits around heightened personalization, advanced site search and reports of business and customer data [3].

In conclusion, cloud computing has had a significant impact on e-commerce by providing business with scalable, flexible, cost-effective and reliable resources. The cloud services represent the upcoming direction of e-commerce and many businesses will exclusively use the cloud computing to manage their operations. The cloud computing will continue to increase in significance as more companies admit its limitless potential and benefits.

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