

Edge computing in the shadow of the cloud

An alternative solution for data processing is emerging on the market

"There has never been more cloud applications in German companies than today," states Jerome Evans, founder and CEO of firstcolo as well as diva-e Cloud GmbH, based in Frankfurt. Numbers back up his statement: according to this year's Cloud Monitor 2021 conducted by bitkom research and KPMG, 82 percent of the 556 companies surveyed use cloud computing and 15 percent plan to do so in the near future. But it will not remain the only option on the data processing market for much longer. For a few years now, other computing systems have been emerging, including Edge. Experts believe that this boom has been triggered by the recent increase in Internet of Things (IoT) devices. IoT refers to a network of networked devices equipped with sensors that exchange data over the internet. But what does edge computing mean, where are the differences to cloud data processing and will it replace it in the future?

Local instead of central

While the cloud is increasingly becoming the standard in information technology, edge computing is an area where many companies have recently focused their investment interest. It involves decentralised data processing at the edge of a network, with an eventual or limited connection to a large data centre. "It consists of a network of multiple micro-data centres that process locally originated data directly at the point of origin," explains Evans. In most cases, this happens directly on the end device. A distinction can be made between thick edge and thin edge devices. Thin edge devices offer little storage capacity or low computing power and can therefore only perform tasks with low IT resources. In contrast, thick edge devices have extensive IT capacity at their disposal and can also take on cloud tasks.

Low latency in the face of security concerns

Low latency is a clear advantage of processing data at the edge. "This is a crucial factor for many IoT devices, such as self-driving cars, which require real-time data transmission," explains the expert. It offers an efficient and economical solution to process large amounts of data locally while not sharing any of the company's sensitive data. However, there are also some serious disadvantages compared to cloud computing. For example, the installation costs are usually higher and the effort required is greater. In addition, the reliability of the connection can fluctuate greatly if a single device fails. Ensuring security at the edge of the

network also remains particularly difficult. "Cloud computing systems provide a protective central structure in which providers process data in a data centre secure from cyber-attacks," Evans explains. With edge devices, ensuring security is more difficult because of the spatial distribution and quantity of devices. Here, specially trained staff must protect the devices through regular maintenance, updates and limited accessibility. External colocation service providers often take on these tasks.

Data processing in the future

Nowadays, many companies need to control a constantly growing stream of data, which they must process and store securely at the same time. This means that in the near future, at the latest, they will be faced with the task of finding the right strategy for themselves from the various options available. " In this context, the edge alternative does not of course displace cloud computing from the data processing market. Both offer different approaches to solving various challenges of modern society," Evans points out. Edge computing has a significance primarily for companies that need real-time processing of their data and thus offers a very important tool for IoT devices. "For all other companies, the cloud remains the most reliable partner as it scores with its security, global scalability and lower costs," the expert concludes.

Further information about diva-e Datacenters GmbH can be found under first-colo.net.

firstcolo

As an operator of data centres in Germany, firstcolo, based in Frankfurt am Main, provides its customers with the highest level of service quality. In addition to classic colocation and the rental of server systems, firstcolo's range of services also includes storage-on-demand solutions, backup solutions and cloud services. firstcolo is part of the diva-e Group, which, as the leading transactional experience partner in Germany, has over 20 years of industry expertise in the digital world. Around 800 diva-e Group employees in 13 offices in 8 different locations take care of the needs of the wide-ranging customer base, which includes a large pool of industries from technology, retail and healthcare. In addition to large and well-known companies such as FC Bayern Munich, Siemens, Mister Spex, Audi or Sky, many other renowned customers are among them.