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How the world of servers is currently evolving

Performance determines what happens - also in information technology. Without functioning and powerful servers, very little runs these days. Maximum reliability and minimum delays without downtimes are required, as well as security. Where is the development in the server sector heading to?

Performance determines what happens - and not just since yesterday. Of course, this also applies to information technology, which has reached a high level in the meantime. Nowadays, very little runs without functioning and powerful servers. The harmony of maximum reliability and minimum delay as well as the absence of downtime are the main factors here. In addition, there is the necessity of protecting the respective surroundings. However, in which way is the development in server hardware going?

Off-site is becoming more and more popular

When it comes to operating servers, those in charge of the companies need to consider a lot of things. First, they should be in a place with suitable conditions - this is where the keywords humidity and cooling often arise. If the capacity of the hard disks runs out, the performance decreases at the same time. That is why the hard disk load needs to be constantly monitored. In addition, the main memory must perform well - if it is no longer sufficient, this leads to a general drop in performance. The same applies to the main processor: IT managers should also keep a steady eye on it to prevent impending overloads from the very beginning. This also helps to avoid system crashes. Due to these diverse challenges of maintaining the performance of the servers, the trend is rooting more than ever towards the use of external data centres. Besides the performance, colocation offers several other advantages for companies: It saves space, resources, and expenditure on hardware. Also, it has optimal accessibility and network connectivity with physical and data driven protection of IT hardware.

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Threatening fallacy

In the meantime, however, PCs are also reaching greater and greater spheres of performance which, as a rule, have excellent equipment nowadays. As a result, many responsible people sometimes consider whether a fleet of premium computers with the right components is not enough - this trend can be observed. After all, in many companies an ageing server landscape is part of the usual situation. This gives the impression that high-performance PCs represent an immense upgrade of existing conditions. But especially when it comes to longevity, this solution clearly draws the short straw - because fans, power supply units and the boards are primarily characterised by their massiveness and longevity. Especially with fans, it is not the volume that counts, but the actual purpose. And in server rooms or data centres, the focus is not on acoustics. The situation is similar with components such as processors or hard disks, which function quite differently in servers than in PCs. In addition, there are differences in the network cards being used. For this reason, decision-makers should clearly position themselves for a server landscape - ideally in a high-performance data centre.

Other tendencies

In the world of servers, there is rarely a stagnation. Due to the energy crisis, the relationship between power demand and performance is becoming more and more important. At the same time, the amount of data increases almost every second, which leads to a higher consumption. This is precisely why a major trend towards edge computing has developed. This is accompanied by a movement towards software-as-a-service and cloud services, both of which are becoming increasingly important. The volume of work in the cloud is also continuously increasing. Overall, it can be said that increasing efficiency in data centres is becoming more important than ever. Colocation data centres are emerging as the logical way forward. In particular, dedicated servers come into question for companies with large data volumes. "

Link to the article: https://www.geldinstitute.de/it-itk/2023/03/wie-sich-die-welt-der-server-aktuell-dreht.html

About Jerome Evans
Jerome Evans is the founder and managing director of firstcolo. He has been involved in IT services and especially data centres for over 15 years. He is responsible for the construction and operation of data centres, but increasingly also for cloud-based server infrastructures.