CLOUD COMPUTING FOR THE LIFE SCIENCES: SCALABILITY, FLEXIBILITY AND CAPACITY

Without data there won't be any medical research. In order to design or test new medicines, the life sciences industry structures, analyzes and compares digital data on a daily basis. With new technologies that conduct reliable patient data - such as wearables given to a test audience or sensors within hospital beds - the amount of data to investigate is growing rapidly. On the one hand that's great news, it quickens the research process and ensures a more accurate outcome, which increases patient safety. Thanks to new digital technologies, these growing amounts of data can be used by multiple parties in a reliable, transparent way.

On the other hand, from an IT management perspective, these large sets of data might cause several headaches. Storing sensitive data on-premises, like it's been done for many years, has proven to be difficult nowadays. The rapidly growing amount of data requires additional computing power, storage, servers and high level security standards. The question is: should life sciences become experts in IT and data security or should the industry stick to its core business?

THE CLOUD: A NETWORK OF SERVERS

Keeping large amounts of sensitive data on premises isn't justifiable any longer. In order to stay compliant to several industry standards something has to change. That's where the cloud steps in. Whether relying on a managed private cloud, an IT system dedicated to your organization's needs, or the public cloud which provides IT services that are simultaneously used by multiple businesses, or even a combination of the two, one thing is certain: data needs to be stored, managed and secured at the highest possible standard.

To some the cloud might seem a little too abstract. The cloud as a whole is nothing other than a network of servers located in many different data centers that are connected through the internet. These data centers are equipped with the latest technology, get certified and audited every year and are managed by highly skilled IT experts.

DEPENING ON STRONG INFRASTRUCTURE

Following the United States, the Netherlands was the first country to gain access to the internet in 1988. It comes as no surprise that in the years that followed, the Netherlands developed into a country with excellent internet connections. Since then, digital services have become important in our lives as well as in the way we work. As a result, the number of data centers that store SaaS solutions, IT infrastructures and data has risen dramatically and, combined with secure internet access points, the Dutch digital infrastructure has grown into the strongest in Europe (1).

(1) Dutch Data Center Report 2016 - State of the Dutch Data Centers.   http://www.dutchdatacenters.nl/dutch-data-center-report.html

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Thanks to the strong infrastructure, Dutch organizations have the luxury to choose from plenty of Dutch data centers - each with its own expertise and set of security standards - to store sensitive data. For life sciences, the most vital criteria when it comes to selecting the right data center are its geographic location, connectivity and transparency and qualification efforts. By selecting a Dutch data center, life sciences will be able to profit from high speed connectivity and reliable networks.

Dutch data centers a renowned for their qualification efforts: many Dutch data centers are certified with numerous ISO standards. In addition, the Dutch employees tend to be highly skilled and are usually bilingual. External auditors who will want to examine your physical servers at any given day and time can easily travel to and from the Netherlands due to its central position in Europe and great physical infrastructure. Last but not least, most Dutch data centers are very energy efficient due to the favourable Dutch climate.

With such a strong foundation, the cloud provides an opportunity for life sciences. Organizations can fully embrace the benefits of digitalization: analyzing large sets of data is accurate and fast using the enormous computing power that only data centers can provide. In other words: adopting a cloud strategy impacts productivity, analytical skills and data security drastically. It means the life sciences industry can concentrate on medicine and leave all related matters such as IT in the capable hands of others.