



WHAT ARE THE DECISIVE FACTORS THAT DETERMINE THE LOCATIONS OF DATA CENTRES?

Equinix, Inc, a global provider of interconnection and data centre services, announced that it will open its first data centre in Hamburg this year, with the company citing the strategic advantages of the location.

Equinix is investing approximately US\$36 million in the purchase, conversion and expansion of the new data centre 'HH1' at Vierenkamp, which is expected to be operational in the third quarter of 2019.

With Hamburg, Equinix will soon enter the fourth market in Germany. In addition to the data centres in Frankfurt, Dusseldorf and Munich, HH1 will be the 10th IBX data centre in Germany.

Hamburg will play an important role in Equinix's business in Germany. One of the strategic advantages of the location, for example, is the geographical proximity to the North Sea, which offers new possibilities for connecting to submarine cradles.

As the most important commercial and business centre of Northern Europe, Hamburg also plays a major role for the European and German economy.

Thousands of national and international companies are based in the region and benefit from connectivity with companies, partners, network and cloud providers within Equinix data centres.

Highlights

- HH1 will be the first Equinix data centre at the new Hamburg location. The data centre will have 12,000 square feet of whitespace and 1,875 cabinets

- The new data centre is geographically located close to the North Sea and offers further possibilities for access to submarine cradles. In the past few years, Equinix has already won more than 20 submarine cable landing points
- In 2015, the Hamburg Senate adopted the 'Digital City' strategy, the aim of which is to establish Hamburg as the leading digital location in Germany and Europe. The strategy should bundle processes and create structures. With its infrastructure, Equinix can contribute to the realisation of these processes
- In addition to the reopening in Hamburg, Equinix plans further investments in Germany by the end of 2019. It was only in October that Equinix announced the expansion of the Frankfurt site. The company also committed to spend over US\$150 million on the organic expansion of its German data centres for the 2018-2019 fiscal years
- More than 900 companies use Equinix data centres in Germany to connect with partners, customers and service providers within their digital value chain
- Today, Equinix operates more than 200 IBX data centres in 52 markets, giving its customers many opportunities to connect with other companies around the world through the Platform Equinix

Donald Badoux, Managing Director Equinix Germany GmbH, said: "As a port and commercial city, Hamburg has always been known as Germany's 'Gateway to the World'. With the help of our interconnection and colocation services, we will soon make sure that this also applies to the digital world."



**RASHEED AL-OMARI,
PRINCIPAL BUSINESS
SOLUTIONS STRATEGIST
AT VMWARE**

will require increasing levels of compute at the edge.

Of course, these processes need to be secured, managed and automated. VMware will help customers by providing local intelligence and compute from the data centre to the cloud to the edge.

So, to answer the question, a major factor determining the location of data centres depends on the requirement of the connected device and the data it produces.

In the case of data produced by autonomous cars, the location of the

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When discussing the location of data centres we need to look at the way data is used now and how it will be used in the future. The way data is used and handled today is very different from just a few years ago.

With ever more connected devices producing and using data, often autonomously, there is a growing need for data to be processed closer to its source or at the edge and to move to different locations based on requirement and speed.

All of this has an impact on determining the location of different types of data centres.

Moreover, this is also changing definitions of the term 'data centre'. I like to say that data centres are now actually 'centres of data'. We now have data on the cloud, on the edge and on the last mile, so centres of data are scattered everywhere. This is the current requirement and this trend will only grow.

As data becomes ever more important in Smart City environments, data centres also become more segmented and will take on new roles.

VMware is developing a framework that extends the VMware hybrid and multi-cloud environments to the edge. Furthermore, as the world of edge computing and IoT becomes more distributed, billions of connected devices

micro data centre – which can process so much data at source – will need to be in the car itself.

That data centre may also need to communicate with another data centre on the edge – which would probably be located in a nearby metropolitan area close to wherever the car is driving.

At VMware we are moving into software defined data centres, which provide the intelligence required to move data where it needs to go.

The intelligence will be self-driving and this is something we are doing with our self-driving data centres which save time and money by automating the business and operational intent in data centres.



YASSER ZEINELDIN, CEO OF EHOSTING DATAFORT

Data is critical to every organisation and there is a worldwide increase of data centre facilities and usage. The location of a data centre is as important to the service provider as it is to the end customer. Some of the most vital factors that determine the data centre sites revolve around the actual physical location, governmental mandates, power and network accessibility, weather conditions, security and professional skills. All of these have a striking effect and contribute to the service quality of any data centre.

When choosing a data centre location, it is important to consider the proximity of the physical infrastructure for customers. The ripple effect of this filters into customers being more confident in knowing where the data centres are situated and if need

be, having access to them. Simultaneously, it provides customers with quick response times and minimal latency. On the other hand, for service providers, weather conditions and natural disaster-prone locations play a significant role in the choice of location to circumvent the latent risk conditions. For example, at eHosting DataFort, we have invested in cost-efficient cooling systems to sidestep the extreme climatic conditions in the UAE.

Another key factor is the proximity to power resources and strong network connectivity to ensure ongoing availability and speed of data transfer. Added to this is real estate costs that must be considered for long term strategic goals which may include expansion of the data centre.

In recent years there is an increasing need to adhere to governmental rules and

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regulations which highlight and focus on data protection. Compliance is critical both within the home country as well as the laws of the country in which the data centre is situated. While it is not only applicable to specific industries such as oil and gas, finance and healthcare, it has now extended into regional requirements such as the European Union's GDPR to protect the data and privacy of individuals.

Access to skilled professionals is yet another requisite when choosing to build a data centre. With the skills gap in the IT industry, one must ensure that these specialists are available to match the needs of the markets. If not, then the escalating costs of recruiting and retaining these professionals will mean higher budget allocations.

Data centres contain critical information which includes customer data and intellectual property and it is important to ensure that the location of the data centre is chosen for its physical security where it will be safe from unauthorised access as well as fortified against any cybersecurity breaches.



**JON LUCAS,
DIRECTOR AT HYVE
MANAGED HOSTING**

**DATA NEEDS
TO BE ABLE
TO TRAVEL
CONSTANTLY
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THE DATA
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USING IT.**

3. Communication

If a problem with a business' website occurs, having a hosting provider based further away can become a problem. Having a data centre close by provides a greater guarantee of instant availability, meaning that if a crisis or technical issue occurs, it could be solved in a quick, efficient manner.

Being in the same time zone also makes communication easier and customers can benefit from engineers that speak the same language to offer the most effective service.

4. Climate

Though this might seem a trivial aspect, natural disasters can have a direct effect on hosting, particularly if a website is being hosted from a physical location. A business does not want to risk losing its data or website connectivity because there is a weather disaster in the surrounding area – anything from flooding to bushfires to hurricanes.

However, disasters can happen anywhere, so a provider with a backup data centre gives customers confidence that they are in safe hands.

It is crucial that data centre locations are selected wisely and keeping these four tips in mind will help avoid a wealth of problems further down the line. ♦



With the amount of data being created rapidly growing and affecting businesses of all sizes, here are the 'four Cs' that should be noted

when deciding where to locate a physical data centre.

1. Connectivity

Data needs to be able to travel constantly between the data centre and the business using it. Having a hosting provider located nearby means that the data has a shorter distance to travel compared to overseas hosting, for example; this can provide a more continuous connection.

Businesses can also base their choice on a data centre's Internet Exchange points and secure routes to global

markets, again guaranteeing strong connections globally.

2. Compliance

As a standard, every good hosting provider should hold all of the necessary ISO and security accreditations to ensure that they are consistently providing a secure service. But now that GDPR is in effect and businesses are expected to have a firm grasp on all of their EU customers' data, data sovereignty – the notion that data must comply with the laws of the country it's in – also becomes a much more important issue.

Data centres in the UK must comply with GDPR if they have EU customers; even after Brexit, this law will still apply, and the UK plans to introduce a similar initiative itself.