

DigiPlex: Virtualisation is an opportunity, not a threat, for data centre operators.

The cloud needs data centres to survive

Online article by Computing UK – July 2017

Recently, IT firm EVRY faced a challenge: it wanted to consolidate its 16 data centres, located remotely around Norway, into a single 10MW site. Due to their age, linking them virtually wasn't an option, and so the company turned to fellow Nordic firm, DigiPlex.

Based, in Norway, DigiPlex (a recent winner of *Computing's* Big Data and IoT Excellence award) operates several data centres across the region, which has become one of the world's primary locations for the IT industry. As well as the cool, moist climate, the abundant space and low cost of power make the construction and running costs lower than the rest of Europe. This week we sat down with CEO Gisle Eckhoff, CCO Lars Tisén and CMO Fredrik Jansson to discuss the market, and why DigiPlex isn't scared of the virtualisation trend that is worrying other operators.

The Nordics caught the eye of the data centre world in 2013, only held back by comparatively poor connectivity. That problem now having been solved (DigiPlex's centres are connected with fibre, and data can move between Norway and the UK in milliseconds), the region is attracting high levels of investment: Facebook and Google have large hyperscale data centres in the region, and Apple committed to building its second Danish centre this week.

DigiPlex built its first site in Oslo, and the company now operates three data centres in the city; it is also building Sweden's largest commercial data centre, with plans to expand in Denmark and Finland.

The climate is key. Data centres generate a huge amount of heat, but, Eckhoff notes, "We have quite cold summers, and even colder winters." That means a big cost saving on power.

Not only are the data centres using less power; the operators are paying less for it than they would elsewhere. Subsidies on data centre power tax are as high as 97 per cent in Norway and Sweden. The power usage effectiveness (PUE) (the ratio of power used by the data centre to the power delivered to the computing equipment) of DigiPlex's new sites is 1.2, compared to the UK market average of 1.8 to 2.0. The combination of cheap power and low PUE means that firms can save as much as 60 per cent on the cost of power by moving from a UK centre to one operated by DigiPlex

Much of that cheap power - all of it, in the case of DigiPlex - comes from renewable resources like hydro and wind. As CSR becomes more important in the boardroom and to end-users, this is a major consideration

Virtualisation is the topic of the moment, as more and more data is stored in the cloud. Eckhoff is not worried, though: "You could look at this as a threat or an opportunity," he says. "Our approach is to get our customers to work closely with the cloud operators - and have the operators in our data centres, too...We see them as complementary." Jansson added, "All clouds physically live in a data centre!"

The rise in consumption of data, from mobile devices and the IoT, will also support the data centre market.

Like every IT market, the GDPR is affecting data centres - but in a much more positive way. The requirements to store European citizens' information in Europe means that companies from outside the region are increasingly leasing space on existing data centres, or building their own (see Apple, above).

"We see rising demand from large global entities to have 'edge' data centre deployments across Europe," says Chief Commercial Officer Lars Tisé. "They then connect the edge centres to their more remote hyperscale centres and create a global network... Using these local centres lowers latency to businesses; even with a fibre network, there is a few milliseconds delay in moving information between countries." Tisé stresses that the decision to use a local or remote data centre should be made on a case-by-case basis.

Payment processing firm VocaLink is mentioned as an example. Most of its processing is not done live, but in batches at night. That work could be offloaded to a remote site in the Nordics, rather than using the "high energy, really inefficient data centres" that the firm currently patronises in the UK. The small amount of processing that needs to be communicated in real time would be best-served with an edge site.

What's in the future?

Over the next 12 months, DigiPlex will continue to build out its capacity while focusing on its innovation and sustainability. The firm is investigating heat recycling now, through which it will take the excess heat generated by the equipment in the data centres, feed it back to the local community and use it to heat thousands of homes.

Eckhoff left us with an impressive statistic: a 10MW data centre operating in the Nordics instead of the UK saves around \$100 million, on power alone, over 10 years, and has a carbon footprint close to 0. By moving its operations to its new DigiPlex-built data centre, EVRY has not only achieved its 1.2 PUE target: it has been awarded the top spot in Norway's list of sustainable companies.