

Powering DeepL's AI language translator

Feeding its supercomputer brain to do the impossible

Technology has improved our ability to communicate with each other in ways unimaginable just 10 years ago. Although machine translation services like Google Translate have arisen to support this unprecedented growth in global communication, online translators are still largely inferior to human translators and are notoriously inaccurate. When asked to translate the word “amazing” into Italian, Google’s answer is “stupefacente,” which is more commonly used to describe narcotics, and more similar words to the word “stupefying”.

DeepL, a German-based technology company specialising in natural language translation, was created to develop a more advanced, deep neural network translation service that shifts language translation from stilted to natural

Challenge

DeepL utilises advanced AI and neural network machine translation technologies to analyse and train its service. It needed power and compute to drive the supercomputer that would serve as the translator’s brain. Supercomputers such as DeepL’s are powerhungry and require specialised HPC infrastructure and support to enable them to operate fluently. After evaluating the data center options in Germany, DeepL quickly concluded that it needed an HPC specialist provider, but German data centers have been slow to design and optimise infrastructure for these types of HPC workloads and lack the scalable power profiles needed to support them.

Solution

Verne and its Iceland location was an ideal fit. Verne’s team designed its industrial scale campus to specifically support HPC and intensive AI and machine learning applications. The campus is powered by Iceland’s abundant and reliable energy, and naturally cooled at no cost due to Iceland’s cool, temperate climate. Verne’s technical team is highly skilled at supporting HPC infrastructure and the applications deployed on it, and has built an enviable reputation for world class customer service.



We needed a data center optimised for HPC and determined that our needs could not be met in Germany. Verne's Icelandic campus provides us with the scalability, flexibility and technical resources we need.

Dr Jaroslaw Kutylowski
CEO, DeepL



Supercomputing Power

Results



70% more cost efficient

Optimising total cost of ownership (TCO) is important to any organisation. This is magnified within an AI startup business, where it is particularly vital that investment is allocated towards businesscritical activities, such as developing the technology platform, and on delivering customer needs. To focus on these core areas, DeepL struck a partnership with Verne, which enabled the startup to grow incrementally within the data center, in line with customer demand. This approach, together with the long term, low cost power, and free cooling, has enabled DeepL to take advantage of an optimised data center solution at a 70% lower cost than available in continental Europe.



Unreal customer experience

While Verne's specialised infrastructure and Iceland's power profile were important factors in DeepL's decision to move its supercomputer, just as important was having access to an exceptional support team. Critically, Verne has established a world-class technical and operations team that is fully capable of supporting HPC hardware and application deployments, and achieves Net Promoter Scores well above the data center industry average.



HPC that doesn't cost the Earth

By utilising Iceland's renewable energy, Datto was able to meet the growing demand for a more environmentally conscious and sustainable solution that many of its customers were requesting. Iceland's low power costs from 100% renewable energy and free year-round ambient air cooling, combined with the optimised infrastructure on campus, made Verne the most cost-effective, scalable and sustainable data center choice.



A partnership built to last

DeepL already plans to further expand its capacities on the campus in Iceland: "This was just the beginning" says Dr Jaroslaw Kutylowski, DeepL's CTO. "We are growing daily and are happy to have found a partner in Verne with whom we can easily scale up at any time and who can implement our requirement without much lead time and at eye level."

If you're working with HPC and intensive, machine learning applications and need a partner who can provide an optimised environment along with world-class technical support, then speak to us at Verne and find out how we can help.

80%

Savings of secure low-cost, long-term power TCO contracts compared to major European data center markets for our customers.



We are delighted that Verne was the ideal partner for DeepL's computational ambitions. Our industrial scale campus in Iceland provides the perfect combinations of technologies and products to support even the most demanding HPC applications.

Tate Cantrell
CTO, Verne



**Make an impact
from the ground up.**

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