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Propelling Krystal to further success with Katapult, the planet's only Certified B Corp public cloud



Background

Voted the UK's best web hosting service, Krystal offers premium web hosting that protects the planet. As the UK's only B Corp public cloud/hosting provider, the company is 100% renewably powered and its commitment to sustainability drives its business decisions.

Krystal was created in 2002 as an "honest, reliable and personal" alternative to faceless web hosting corporations, and with a mission to be a vehicle for lasting positive change.

Founder and CEO Simon Blackler says, "For us, benefitting the planet is not about creating an ethical brand. It's our reason for existing. We not only run on 100% renewable energy, we reward our staff for doing the same. We also partner with like-minded suppliers because we really do want to leave the world a better place."

It's against this backdrop that data centre infrastructure specialists Vespertec have become so much more than just a trusted supplier to Krystal – and now also to Krystal's public cloud service, Katapult.

It all began several years before when Vespertec first introduced themselves to Krystal and, by chance, found themselves in the right place, at the right time.



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Challenge

As a result of that initial 'cold' contact, Krystal quickly discovered that Vespertec were able to solve an immediate supply problem; not only that, they were able to help with strategic input on new and emerging technologies.

The developing partnership came into its own with a project that would morph into the creation of an all-new new service and revenue stream for Krystal.

At first, Krystal was looking only for a fast, stable, and scalable alternative to an existing solution, primarily for in-house use. This solution's integrated

storage, while reliable, lacked instant scalability. Performance was also limited and didn't improve as the cluster grew. A much better and more modern solution was needed.

Krystal decided to throw the challenge at Vespertec. As it transpired, the technology solution from Vespertec would be so effective that it would propel Krystal to the external market launch of Katapult, its new public cloud service.

Solution

The Vespertec team immediately advised on how to solve the storage issues with a next-generation solution. However, Vespertec also knew that Krystal was a customer with big ambitions, and one that was prepared to take calculated risks.

Very quickly, what had begun as a "how can we fix this?" discussion developed into something far more exciting. Performance projections were so impressive that Krystal abandoned their early idea of buying an off-the-shelf virtualisation platform. Instead they began to develop 'Katapult', initially as an internal tool to run their own virtualisation in-house.

Then came the eureka moment: Katapult had so much potential that it could be a complete new hypercloud service for an external audience.

Alex Easter, Krystal's CTO, explains: "The Vespertec solution, based on VAST's universal storage and DASE architecture, absolutely nailed the underlying storage. It met our most exacting requirements for performance, scale, cost and manageability. What we actually had was a public cloud service with a market-beating cost per TB that we could launch to the world."



With Katapult we've been able to out-innovate the public cloud giants, deliver higher performance for less cost, and differentiate ourselves in a competitive market.

It would have been near-impossible to do that so quickly and so comprehensively without Vespertec's technology and integration expertise and the world-beating solutions they proposed from VAST Data and NVIDIA.

Alex Easter, CTO, Krystal Hosting



Results

Working closely with Vespertec to understand the potential of the technologies available to them, Krystal were able to out-innovate the public cloud giants.

Katapult is the world's fastest and simplest public cloud and the planet's only Certified B Corp public cloud. Crucially, it runs on 100% renewable energy from sources such as solar, wind and sea.

According to Alex Easter, "We've made a significant investment in Katapult and now we are seeing payback. Katapult is a master-crafted virtual infrastructure that now hosts almost everything that Krystal operates. Our current hardware refresh cycle is probably the last one we will ever need to do, as everything is now virtualised onto Katapult."

Alex continues: "Now we have just one 'fabric' for all our operations and it's incredibly easy to manage. The underlying infrastructure is the same – as standardised as possible, yet with the flexibility to meet each customer's needs, no matter how complex or esoteric."

To help achieve this, Vespertec have delivered over 100TB of RAM and close to 10,000 vCore of the latest AMD EPYC generations. Multi petabytes of file and block storage systems are built using the latest innovators in storage, with VAST Data storage and NVIDIA networking. And it's all married up with Vespertec's engineering expertise to give the best fit designs and support for an ever-expanding business. Proof of concept work is also delivered by Vespertec

for new technologies, with the team able to navigate large vendors and quickly get input from the right personnel.

Alex concludes: "It's critical for Katapult to not only have the right third party kit but also have it integrated in the right way. That would have involved a huge amount of work for us, talking to maybe five or six different vendors. It's lovely to just pick up the phone to Vespertec and have one conversation with the experts in data centre infrastructure – and with people who are so close to our business.

"Inventory planning, stockholding and just-in-time delivery and hardware break-fix services are also a big part Vespertec's support for Krystal's entire operations.

"Moreover, Vespertec share our commitment to sustainability, generating a high percentage of the electricity they use at Vespertec HQ through solar panels installed on their roof. It's a great fit all round."



When we moved to consulting and collaborating with Vespertec on different solutions and technologies, that point was the beginning of a very cool journey. Today we see Vespertec as one of our secret weapons.

Alex Easter, CTO, Krystal Hosting



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