Nominee: HyperGrid

Nomination title: HyperGrid delivers almost £1million in IT cost savings for global relief and development agency

Customer Background

Tearfund is a Christian charity that works to alleviate poverty across the world. Operating in Asia, Africa and South and Central America, Tearfund has reached over 29 million people through community development projects and a network of over 100,000 churches.

What technology challenge needed to be addressed?

To manage the charity's applications and services, Tearfund utilised a traditional three-tier IT infrastructure composed of three high-end C7000 HP Bladecentre chassis, each with eight blades and close to 70TB of Lefthand SAN (SAS) storage with associated networking technologies for switching, provided by Cisco and Brocade. This infrastructure was spread over seven 42U racks between two data centres, which caused significant performance bottlenecks and processing issues. Tearfund often has to respond rapidly to disasters in the developing world, so speed of operation can be critical to the organisation.

The IT infrastructure was no longer fit for purpose. Stuart Hall, Infrastructure Lead at Tearfund, explains: "It is essential for non-profits and charities to operate as efficiently as possible to maximise their financial resources, and it was clear that our outdated IT infrastructure had to be upgraded to reduce costs and free up more money for the charity's projects. We faced several challenges with our existing system, including slow processing speed, high electricity consumption and pressure on IT staff resources, which we needed to resolve to minimise the impact of IT services on the charity's bottom line."

"We faced a lot of performance issues owing to the physical separation of logical storage from the memory and compute, which could often lead to 12 hours of processing time, two hours on a good day. We had additional concerns around performance due to our support of OLAP cubes. These issues were a real hindrance to Tearfund carrying out critical activities that were essential to the success of the charity's projects. We needed a solution that would cut processing time to under an hour so that our staff could accomplish the work they needed to do in as short a time as possible."

Another challenge facing the IT team at Tearfund was the high levels of energy consumption on their existing infrastructure. As a charity that relies heavily on donations, it is essential that all services run in as cost-effective a manner as possible. Operating this outdated IT infrastructure resulted in very high electricity consumption. Before the project began, the Tearfund IT systems were consuming 22KW/h, and it was crucial that this level of consumption was reduced so that the charity could devote more finances to its projects across the developing world.

Hall identifies another challenge faced by the IT team at Tearfund: "Our existing infrastructure was consuming too much of our staff's time in maintenance. We would often have to spend half a day configuring a VM which prevented us from taking a more strategic approach to IT, enabling IT to be a driver of the charity's activities, rather than an impediment. The IT labour market is very competitive, and it can be difficult to retain top talent when they spend so much time on repetitive maintenance tasks rather than working on more interesting projects."

How did the solution address the challenges?

Tearfund began surveying the IT market with a view to upgrading its existing infrastructure to an on-premise, cloud-based solution. It carried out a proof of concept with HyperGrid and a competing vendor, both of whom could support the company's preferred hypervisor – Hyper-V. As part of the proof of concept, Tearfund challenged both companies to deliver significant improvements in performance and reduce the processing time to below one hour.

Stuart Hall says: "HyperGrid was able to reduce processing time from 12 hours on a bad day to just 20 minutes, a 36x improvement in performance and well below our target. We have since purchased two three-node all-SSD HyperCloud platforms, occupying 6U of rack space including the associated switching. This has seen us jump from IOP capacity measured in the thousands to a system where we measure the capacity in millions. One chassis would be enough, but we purchased a second to give us full failover capacity for BCP at our remote data centre."

HyperGrid deployed its cutting edge HyperCloud platform-aaS, enabling Tearfund to consolidate its IT infrastructure, to a single private cloud platform under a common management framework. The intuitive nature of the HyperCloud platform allows Tearfund to refocus on efficient application and service delivery to the organisation. Tearfund are currently occupying just 40% of the available data storage on the HyperGrid solution, but this gives the organisation room to grow and develop innovation over the lifetime of the product. With HyperGrid's solution, Tearfund can continue to use its existing management toolsets and frameworks, with no need to change its day-to-day DevOps management processes.

What tangible benefits has the organisation seen since the project's implementation?

The reliability and simplicity of HyperGrid's solution ensures that the team does not have to learn how to use new tools and management interfaces, enabling the IT staff to work on more interesting and engaging IT projects, rather than spending so much of their time on traditional and repetitive IT tasks. HyperGrid's on-premise solution has significantly improved processing speed, outperforming Tearfund's specified requirements and ensuring that key activities that are crucial to the success of the charity's projects are not delayed by IT processes.

"As a charity we do not often get the opportunity to adopt truly world-leading technology, but HyperGrid has given us that opportunity. I have worked in the IT sector for 25 years, and this has been, by some distance, the easiest, smoothest project that I have ever managed. We have had fantastic support from HyperGrid throughout the process, from the reassurance and rigorous testing that we completed in the pre-sales period, to first-class support throughout the project. HyperGrid has met absolutely every requirement we set, and we couldn't be happier with the solution."

Why nominee should win

• HyperGrid's solution enabled Tearfund to reduce electricity consumption from 22KW/h to just 3KW/h, saving approximately £200,500, a crucial saving for an organisation that is financed by donations and other charitable resources.

• HyperGrid's solution also generated additional savings of approximately £150,000 per year through reduced maintenance and engineering costs

• In total, the HyperGrid solution created phenomenal savings of approximately £950,500 over the five-year lifetime of the solution.

• Rack space has reduced from seven racks to just 6U of hardware space

• Improved performance and processing speed, reducing processing time from 12 hours to 20 minutes, a 36x performance increase.