

Plymouth Marine Laboratory safeguards critical research data with Loadbalancer.org and Dell EMC

A world-renowned marine research institute in the UK can now transfer huge volumes of data to its Dell EMC ECS storage platform, without having to worry about throughput restrictions. By using a load balancer from Loadbalancer.org, the organization can back up exceptional volumes of data, day after day, and ensure vitally important research information is safeguarded for the future.



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Gary Holder,
Head of Information Technology Group,
Plymouth Marine Laboratory

Challenges

- Load balance Dell EMC ECS storage platform
- Support high volumes of data and unexpected peaks in traffic

Solution

- Loadbalancer.org Enterprise VA MAX

Benefits

- Strong experience in load balancing object-based storage solutions
- Unlimited throughput, to support large data volumes
- Reliable performance for daily backups of tens of terabytes of data
- Effortless handling of exceptional peaks in data volumes
- The capacity to load balance other business systems for no additional cost

Challenges

For more than 40 years, the Plymouth Marine Laboratory has been conducting research on the marine environment and undertaking data analysis to monitor changes within it. Day after day, the charity amasses new data from ocean sensors, satellites and researchers and processes sophisticated data models, to gain vitally important environmental intelligence. All this data needs to be backed up securely, so that it can be used to raise awareness of the impacts of humankind on the World Ocean and contribute towards its sustainable stewardship.



Plymouth Marine Laboratory selected the Dell EMC ECS object-based storage platform, to enable it to back up its data to disks on premise. All Dell EMC ECS solutions require compatible load balancers to distribute the inbound workload across the nodes in the ECS platform and maximize performance. With its exceptionally high data volumes, however, Plymouth Marine Laboratory needed a load balancer that could offer a particularly high throughput speed. "The load balancer initially proposed was not fit for purpose, because it had a licensing model that artificially limited the throughput," recalls Gary Holder, Head of Information Technology Group at Plymouth Marine Laboratory. "As a result, we would not have been able to complete all our backups quickly enough."

Solution

The charity selected Loadbalancer.org as its load balancer vendor, because the company offered solutions that could deliver the speed it needed, at an affordable price. Critically, Loadbalancer.org does not limit throughput on its load balancers with restrictive license agreements and has specialist experience of load balancing in object-based storage platforms. "Straight away, Loadbalancer.org demonstrated that its solutions could work with Dell EMC ECS storage solutions," says Holder. "It ticked all our commercial and technical boxes."

To complement its existing virtualized IT infrastructure, the charity selected a virtualized load balancer, the Loadbalancer.org Enterprise VA MAX. "The Loadbalancer.org virtualized solution is very easy and

straightforward to set up and manage," Holder says. "Within less than an hour of downloading the Loadbalancer.org software, we had a working load balancer installed with our Dell EMC ECS storage platform."

Results

Loadbalancer.org's experience in load balancing object-based storage platforms was invaluable for Plymouth Marine Laboratory. "The people at Loadbalancer.org gave us advice when we needed it, about our Dell EMC platform and our wider networking set-up, and they were spot on," Holder says. "They definitely have strong expertise with Dell EMC storage systems, and we felt really supported by them, straight away."

The charity's Dell EMC ECS storage platform is up and running and, at times, needs to back up tens of terabytes of data changes overnight. By transferring the data from a number of Linux servers to ECS nodes in a fast and intelligent way, the Loadbalancer.org load balancer removes bottlenecks that might otherwise impede performance.

Furthermore, because Loadbalancer.org does not restrict throughput, Plymouth Marine Laboratory does not need to worry about unexpected peaks in the volume of data that it needs to back up. "We never know when spikes are going to come, but now we can be confident that we can complete our data backups overnight, whatever our data volumes, as the Loadbalancer.org solution scales up automatically," Holder says.

The scalability of the Loadbalancer.org solution also means that Plymouth Marine Laboratory could, in the future, use its load balancer to help it improve the availability of other key IT systems, including websites for communicating its research. "We are that impressed with how well the Loadbalancer.org solution is working that we are looking to use it with other services," Holder explains. "Because of the Loadbalancer.org licensing model, we can do this at a very competitive cost."

Finally, the Loadbalancer.org products save time in the IT department, as they make it easier to configure and manage servers. Pearce observes, "Previously it may have taken an hour to set up a system using traditional NLB, and it now takes minutes using Loadbalancer.org."

Plymouth Marine Laboratory has signed up to a support agreement with Loadbalancer.org, but cannot comment on how effective or responsive this service is. Holder laughs, "We haven't needed to put Loadbalancer.org's support service to the test. Our load balancer has been reliable ever since we installed it!"

