How local IaaS powers HyQuest’s environmental monitoring

When the provider of precision environmental monitoring solutions required reliable cloud hosting, it looked to vGRID Infrastructure as a Service (IaaS), supported by SkyPoint Technologies. As a result, HyQuest Solutions can deliver always-on environmental monitoring to Auckland Council and other regional authorities around New Zealand and Australia.

Customer Overview

From its base in Hamilton, HyQuest Solutions operates across Australia and New Zealand to provide a range of environmental monitoring, data acquisition and reporting solutions for water, air and energy applications world-wide. As a technical solution provider for organisations that are responsible for collecting environmental data, HyQuest provides monitoring hardware in the form of dataloggers and sensors, as well as a telemetry solution to facilitate data acquisition. It offers expertise in electronics design, software development, manufacturing and assembly of electronic products and data management services.

HyQuest’s customers include local government organisations such as regional councils which are legislated to collect environmental data for reasons including sustainable management of natural resources, to make resource management decisions, for compliance monitoring of consents, for civil defence purposes and for planning and design.

Challenge

Phil White, HyQuest Solutions general manager, explains that one of the company’s major customers is Auckland Council. “We’re in the business of providing telemetry services, essentially the collection of environmental data using our Hydrotel software and monitoring hardware. That data has a lot to do with civil defence and other government departments, which are required to collect and use this data under the terms of applicable legislation.”

The information is collected by data loggers – sensors that, White says, could be hydrology-related (detecting water levels to provide notification of potential floods), water and air quality, monitoring of natural resources and assessments of consent compliance. “This data is fed back over mostly cellular 3G and radio networks and then into various agencies websites to make it available for end user consumption.”
“We’ve been using vGRID since 2015 and have had absolutely no problems at any time. They talk about 99.99 percent uptime and that’s written into the Service Level Agreement – but we’ve not had to look at that SLA as the experience we’ve had is at or above that level,” he confirms. Staff at Auckland Council, no longer need worry about infrastructure issues, instead, they are freed up to concentrate on data collection matters.”

- Phil White, General Manager, HyQuest Solutions (NZ) Ltd

This data, White confirms, is crucial for safety and effective environmental management. “Auckland Council approached us with a request to get more reliability out of their system, while also wanting to be able to manage the data flow without needing their internal IT resources. That’s when we went to SkyPoint Technologies in the same business park, to see what could be done.”

Solution

Roger Salisbury, SkyPoint Technologies director, says their knowledge of the vGRID Infrastructure as a Service (IaaS) offering meant the recommendation for HyQuest was obvious. “Having worked with this cloud solution for several years, it has proven stable, sound and secure. It is also suitable for scaling across multiple councils, which provides the headroom for HyQuest to roll out cloud-powered environmental monitoring across more clients as necessary.”

While vGRID IaaS provides on demand access to server and storage resources, there is a further noteworthy feature to which Salisbury draws attention. “One of the requirements from Auckland Council was that users can access vGRID services without having to involve their IT resources. In the past, any system changes could take weeks to implement adding unnecessary delays and end-user frustrations. We’ve equipped Auckland Council with a self-service panel designed with controls that allow users to self-serve, without compromising system integrity.”

The vGRID solution is mirrored across data centres located in Hamilton and Auckland, which provides redundancy and failover should any disaster impact either centre. “This is important,” says Salisbury, “particularly in a crisis scenario where up to the minute environmental information is crucial in effectively managing a disaster from a civil defence standpoint. The information systems have to be utmost reliable and available.”

White says vGRID, as a locally-developed and provided IaaS solution, has distinct advantages for a software provider like HyQuest. “Besides the IaaS services themselves, which have proven completely reliable over the course of two years, we wanted good, reliable support from people close to us. That makes for a sound team and a real partnership where we can develop the best solutions – that was a major reason for going with vGRID and SkyPoint Technologies.”
Benefits

One of the major advantages of IaaS is that it completely removes the overheads of owning and operating infrastructure from those who access it. That's precisely the experience that White reports: “We’ve been using vGRID since 2015 and have had absolutely no problems at any time. They talk about 99.99 percent uptime and that’s written into the Service Level Agreement – but we’ve not had to look at that SLA as the experience we’ve had is at or above that level,” he confirms. Staff at Auckland Council, he adds, no longer need worry about infrastructure issues, which are tangential at best to their professional activities. “Instead, they are freed up to concentrate on data collection matters.”

Moreover, he points out an advantage that he believes cannot be achieved by an international IaaS provider, of which there are multiple options available. “There are three roles here and three groups – us, HyQuest, providing software and hardware for monitoring, SkyPoint providing vGRID and support, and Auckland Council, the ultimate users of the combined solution. We’ve seen a partnership emerge where there is never any question about who is responsible for what. With vGRID underpinning the solution, there is reliable, accessible and secure infrastructure that never needs to be worried about. I just don’t think it would be possible to achieve that with an international provider.”

Salisbury adds that, from the perspective of an implementation partner, vGRID provides a unique advantage in that the development of the IaaS platform can take place in consultation with SkyPoint’s engineers and those in charge of the vGRID platform itself. “It’s not just if things go wrong, it is also in terms of adding new features that are beneficial to the users. It is a true partnership, rather than dealing with a faceless service from a remote cloud provider.”

Ultimately, however, it is about delivering a service that customers like Auckland Council can depend upon. “And that’s a real advantage. Being locally hosted, the data is instantly available to those who need it. And being proven reliable, it is always available too,” White concludes.

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