

Microsoft Azure Customer Solution Case Study



Customer: Northpower

Website: <http://northpower.com/>

Customer Size: 100-5,000 employees

Country or Region: New Zealand

Industry: Power & Utilities

Partner: Adaptiv Integration

Website: <http://www.adaptiv.co.nz/>

Customer Profile

Northpower is a consumer-owned Trust in which owns an electricity network in the Whangarei and Kaipara districts of North Island, New Zealand. It also maintains power networks in Auckland CBD, South Auckland and Wellington.

Software and Services

- Microsoft Azure
- Azure App Service
- Azure SQL Database
- Azure Visual Studio Application Insights
- Azure Service Bus
- Azure BizTalk Services
- Azure Logic Apps
- Azure Web Apps

For more information about other Microsoft customer successes, please visit: <https://customers.microsoft.com>

High-resilience cloud app to help NZ power co. withstand major storm or earthquake

“With Azure, we reduce dependence on internal infrastructure and can guarantee a twenty-four–seven service, at a competitive cost.”

Michael Billing, Senior Developer, Northpower

New Zealand electrical contractor and power distribution company, Northpower, wanted an out of band, sure-fire method for receiving and sending client service requests to their cloud based dispatch solution — especially during major storm events when outages on network communications could interrupt integration between clients and service provider. In 2015, they used Microsoft Azure, to create a business-to-business application in the cloud that connects client fault centres to Northpower Dispatch services. Using Azure App Services, it took just 400 hours to create and costs NZ\$10 per day to run. With exceptional resilience, it enables Northpower to keep engineers working even if a major storm takes its own server communications down.

Business needs

Northpower needs high-resilience communications. As a electricity and ultra-fast broadband network owner, plus a service contractor to many of New Zealand’s largest electricity networks, the company is responsible for maintaining power supplies to 800,000 properties in Northland, Auckland and the capital, Wellington.

Until 2015, Northpower used cell phones and radios to pass job requests to field engineers whenever a network fault was reported. Northpower invested in a more robust system. But should it deploy the proposed business-to-business (B2B) app on its own infrastructure, or trust it to the cloud?



Microsoft Azure

Alex Douglas, Information Services Manager, Northpower specified: “The service request to field operator information flow needs to have as fewer points of failure as possible, be out of band from the infrastructure we are servicing and continue to operate even if the supporting works management systems are unavailable”.

“We needed a B2B solution that connects external Call Centres to Northpower’s cloud hosted solution enabling, timely, accurate data for dispatching field engineers to the right location as fast as possible and returning updated data to the client,” said Michael Billing, Senior Developer, Northpower. “It had to be easy to maintain, cost effective, and resilient during a major disaster — when demand for repairs soar”

Solution

In 2015, Northpower created a new communications app in the Microsoft cloud, Azure. Called Reactive, it was built with the help of Auckland consultancy, Adaptiv Integration. It uses Azure Web Apps and Logic Apps to connect to multiple external partners in the cloud, and ensure detailed service requests are passed seamlessly to dispatch operators and ultimately on to the field engineers.

“We chose the Azure cloud because it would be highly resilient.” said Michael Billing. “With Azure, we reduce dependence on internal infrastructure and can guarantee a twenty-four-seven service. If there’s a physical failure of our own internal network communications or components, our field-service teams can still receive customer service requests.”

The cloud-based Reactive app took just 400 hours to develop, test and deliver. And since going live, Michael and his team have used Azure App Services tools to include worksheet data within Reactive, so contractors’ time billing data also feeds straight into Northpower Business Systems.

Partnership

“Based on past successful engagements, Adaptiv were approached to help with the platform selection and went on to compliment the in-house team developing specific technical components,” said Alex Douglas

“Our integration partner Adaptiv got us off to a solid start and ensured the team was on the right path for success. They were there with advice when we needed it the most,” said Michael Billing

Benefits

- **Technical resilience:** “The Azure network has its own failover, so we don’t have to harden our own environment,” said Michael Billing.
- **Low day-to-day cost:** The production solution costs NZ\$10 per day on Azure. The Azure subscription cost for Reactive development environment is under \$1 per day, which can be enabled/ disabled on-demand.
- **Business confidence:** Executives know they can instantly transmit requests from call centres to engineers in most disaster scenarios, so customer wait times are minimised.
- **Long-term cost savings:** “In the long-term Azure is a lower-cost solution, because we won’t have to maintain the hardware or the operating system,” said Michael Billing.
- **Rapid scalability:** If a major weather event causes massive damage to power networks, Northpower can scale up Azure servers to cope with a peak in demand.
- **Service creativity:** “We can use different components in Azure – such as Azure Service Bus and Logic Apps – to create new services and solutions,” said Michael Billing.
- **Ease of use.** “Over the last year, the Azure toolbox has significantly improved. Today we can design something new very quickly without a

large cost overhead,” said Michael Billing.