

# PREPARED FOR ANY STORM

CLIENT	CHALLENGE	SOLUTION	OUTCOME
Meteorological Service of New Zealand (MetService).	Data Backup, Resilience and Business Continuity Planning.	Strategy review and implementation of DRaaS & IaaS.	Scalable, low cost, on-demand data backup and recovery. Resilient business processes, ready for any natural event.

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**Mark Huttley, CIO, MetService**

## THE WORLD'S COOLEST WEATHER COMPANY

Meteorological Service of New Zealand (MetService), and its international commercial subsidiary MetraWeather, are acknowledged as innovators in the provision of weather information services. As a world-class provider of weather information, forecasts and intelligence, MetService is committed to providing its services at all hours of the day, around the globe.

“An unrelenting approach to accuracy, quality and consistency underpins everything we do - lives and businesses depend on it,” is how MetService describes its mission. Millions of people in New Zealand and around the globe depend on accurate weather reports from MetService.

Comprehensive, timely and accurate weather intelligence from the organisation also powers a number of local and international businesses in sectors like aviation, energy, farming and media. MetService’s customers use this weather intelligence to keep roads safe, planes in the air and hydro power stations pumping.



## WHAT'S THE CONTINGENCY PLAN?

With up-to-date data from MetService 24x7x365 impacting business revenues and even people's wellbeing and safety, the organisation is continually reviewing its IT infrastructure to ensure its resilient enough to face disruptions, man-made or otherwise.

As a State-owned enterprise (SOE), a primary mandate for MetService New Zealand is to aid in New Zealand's citizens' safety. And it is not just the public safety weather warnings that are a critical service, MetService also provides weather intelligence to the Ministry of Transport (MoT) and the Civil Aviation Authority (CAA).

Its business clients are spread across the world and in sectors such as aviation, energy, farming, oil & gas, mining and media. Weather intelligence solutions are often crucial to these clients and every hour of outage would result in a significant revenue loss to such clients.

As an example, domestic and international flights are not allowed to take off or land in New Zealand without accurate weather intelligence provided by MetService. "So, straight away, if we are not able to provide that, we end up on the front page of the newspaper," says Mark Huttley, CIO of MetService. Every minute's delay in getting such reports for the aviation sector to its intended recipients causes a domino effect of delayed service at multiple levels, resulting in significant losses.

Mark and his team were proactively working on finding potential vulnerabilities in the company's technology environment, and developing robust disaster recovery and business continuity plans for its physical locations, situated in a country prone to large scale natural incidents such as earthquakes and floods.

MetService was working with disparate data protection methods and identified the need for an integrated data recovery approach. In addition, typical issues associated with legacy infrastructure were starting to surface, which added to the need for a second location that could mirror the existing environment in backup and processing capabilities. "We'd been operating out of a single location for a number of years where all our forecasting capabilities were – it has been the nerve centre of the organisation for a long time," says Mark. "As part and parcel of a strategic initiative, we needed to duplicate a significant portion of our main site so that we had dual capability for forecasting."

"We wanted to add greater levels of resilience to our operations and were seeking a partner who understood our business challenges and would help us set up the technology environment that met our needs," says Mark. "We went to market with the RFP and Spectrum were chosen from all those who responded. They came to us with a well-defined proposal."

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## REAL-TIME RESILIENCE

In the first phase of engaging with MetService, Spectrum worked to protect the critical data that powered the organisation's services.

"We worked with Mark and his team to identify the risk posed by these issues and what we could do to mitigate it", says Anton Aalders, Chief Technology Officer at Spectrum.

"In the first phase we worked out the best strategies to back up and protect their data, delivering the highest level data resiliency environment. We then took it further by creating a data replication site in a third party tier three data centre based in Auckland. This was in effect then a Disaster Recovery as a Service (DRaaS) delivery."

This solution freed MetService from the intensive capital expenditure that would have been required to build and maintain their own off-site DR environment. Using Spectrum's expertise in provisioning, configuring and testing an effective disaster recovery plan, MetService's data was ready for any eventuality.

While the first phase protected MetService's business critical data by employing an Actifio copy data virtualisation solution, there was still work to be done to provide resiliency for all the systems that actually process the data and deliver forecasting services.

Mark says, "We have a mandate from the safety side of things (weather intelligence, forecasting and warnings) and we have to be up and live within a short amount of time. If we have to go in for manual processes for more than two hours, we are in trouble. We're working with very tight, SLA-bound RTO and RPO (Recovery Point Objective and Recovery Time Objective) objectives - absolutely key in our environment"

Anton says, "To further reduce MetService's risk profile we transitioned the setup from active/passive to active/active so they could get very rapid recoveries, and in the instance of a disruptive event, the impact would be for minutes not hours."

Phase two of the engagement involved creating an Infrastructure as a Service (IaaS) offering which went beyond just data protection. Using the tier three data centre, Spectrum set up what is now essentially a copy of MetService's real time processing environment, 500kms away from their Wellington HQ, resulting in a near real-time disaster recovery option for the organisation.

"When MetService opened their new office in Auckland, we also helped them with the IT infrastructure for this location, which has now become the key Business Continuity Plan / DR site", says Anton.

MetService could have set up an internal team for this, but it wouldn't have been cost effective, says Mark, "Spectrum came up with some innovative ways of doing things. Their cost was significantly lesser than the competition, plus they had a greater understanding of our existing technology challenges and to best address those for a longer term vision.

It's also easier this way - I don't have to worry about training any other individuals within the teams. We get the right skills without having to spend a lot of time and effort training individuals up."

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## A BEAUTIFUL RESULT

MetService managed to reduce the risk profile of their IT infrastructure significantly, strengthening their business continuity plan and a robust disaster recovery position. The organisation now has more redundancy built in, without significant additional capital expenditure. Using a cloud-based, efficient and scalable IaaS model, MetService now have the confidence of near instant recovery of data and processing capabilities in case of an adverse event.

The ongoing MetService – Spectrum relationship has developed over time to cover a number of services, says Mark. “They now provide to us a variety of services, including storage capability, Virtual Desktop and Virtualisation platforms, some assistance with security aspects, establishment of monitoring, all network services including Wi-Fi, data centre services etc. Spectrum provides us with an end to end service, with a guaranteed SLA and response times. This just takes the technical maturity of the organisation up a level”.

Anton says of the experience of working with MetService, “It’s been a satisfying experience, working with their team and developing and implementing a strategic roadmap that intensifies the resiliency, offers tighter SLA-bound services and at the same time delivers those without the need for increased capital expenditure”.

Mark agrees, “Our relationship with Spectrum has been very good. When looking to set up our alternate location in Auckland the Spectrum team came to us with a well-defined proposal and a transparent cost model which we chose to go with.”

“This solution works on an Opex spend instead of a Capex spend model and it scales on demand. We get regular reports from a capacity and performance perspective.”

“Transparency is something I appreciate with this team. They have the ability and the confidence to challenge any preconceived ideas you may have. They challenged ours and we went with their recommendations, which worked out beautifully. I’d give them extremely high praise for their engagement model, and their capability”, Mark signs off.

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## ABOUT SPECTRUM

Spectrum are a team of experienced consultants with deep technical expertise and strong industry partnerships who help corporate IT teams find and extract more value from their IT investment.

Our team understand complex enterprise computing environments and can help manage enterprise data in innovative ways to reduce the storage overhead while improving data safety. Clients work with us to ensure they have access to high-level specialist expertise not available in-house, gain insights into best practice in our areas of strength, and help make the smartest investment decisions around IT.