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THE TECHNOLOGY ISSUE

**THE HIGHLY
CONNECTED WORLD OF IOT**

**ARMING YOUR BUSINESS AGAINST
CYBER-ATTACK**

**HEY YOU'S REBEKAH CAMPBELL
ON LOVE & FULFILMENT**



Management
NEW ZEALAND
INSPIRING BUSINESS LEADERS



**A FIRST-TIME CEO REFLECTS
ON LESSONS LEARNED**

The low-down on AI:

- How will AI change work?
- How to improve the employee experience



\$12.00



CASE STUDY: HOW BETTER DATA IS BUILDING MUSSEL EXPORTS

An interesting business case study of IoT in action is Adroit's Westpac Mussels partnership.

Westpac Mussels is a 50-year-old family business at the cutting edge of New Zealand's aquaculture industry and with a willingness to work with new technology.

Westpac wanted to streamline harvesting and ensure the food safety of their product green shell mussels, which are exported all over the world. Past harvesting options included monitoring rainfall or use of legacy salinity data buoys. These options were crude leading to longer closures, less harvesting opportunities, and required weekly cleaning at considerable cost.

Adroit's solution is a new-design data buoy, housing an in-situ salinity sensor connected to a Libelium IoT logger. It measures ocean water salinity every 15 minutes, sending the results directly to Westpac Mussels over Spark's CatM1 IoT network.

More accurate salinity readings means better harvesting decisions, fewer missed opportunities, increased harvest windows and, most importantly, better food safety assurance. A bonus is that the buoy only requires cleaning eight times a year, instead of 50, saving time and money.

Adroit's Blair Stewart says the solution is affordable, scalable and works across both mussel and oyster farms. Westpac Mussels was the first data buoy based solution they had provided and naturally came with its challenges.

"Aquaculture farms are by definition a long way from cell-sites so we needed IoT specialist equipment that could connect and send data in all conditions, and not lose data if communication was lost for

any reason," he says. "The system also needed to be solar powered for obvious reasons and the sensors had to resist salt, fouling and sediment.

"The equipment and services we selected for the project worked perfectly. In fact, the biggest challenges were around how the buoy was going to be moored.

"The data buoy is an American product and came with mooring instructions that were quite different to the local approach. This is where Leon and the Westpac Mussels team showed their expertise and came up with a great mooring solution."

Leon Antunovich, a director of Westpac Mussels, found the IoT technology easy to implement because "Adroit and Spark did all the work, we just helped with the installation, agreeing the best approach and then using our people and equipment to do the install."

"Now with data from the data buoys I know how land run-off effects salinity levels."

Leon says the technology has changed the way they organise their operations – it's now based on the weather, real-time monitoring and a better understanding of the environment.

He's pleased they can now harvest longer, open the season earlier or, alternatively, stay closed if water salinity is adversely affected by weather events. "It gives us food safety assurance too," he adds. "We know the product is healthy."

Looking back over the project Leon says there is one lesson they've learnt for next time.

"We will definitely look into buying the bigger model of data buoy so it is easier to see and doesn't get run over by other boats!" ■