

MONTAGE

Montage Helps 'A Cool Company' Reach the Leading Edge



EA Networks, Mid-Canterbury's lines company, is an innovative player in a traditional business. Its industry is undergoing technological change that will bring major disruptions. The company naturally wants to take part.

A few years ago, it had to ask itself: 'Does our comparatively small business have the necessary back-room, information-gathering systems and project management skills in place?' They knew they didn't. They called in Montage, Christchurch-based specialists in Business Intelligence (BI) and PMO. And today? Now they know they're at the leading edge, ready for an exciting future.

Background

EA Networks, the trading name of the electricity lines co-operative owned by the people of Mid-Canterbury, had been operating for decades before it was introduced to Montage.



Created out of the political reforms of the mid-1990s, it began as a power board in 1923, even supplying coal gas at one stage, when energy, whether generation or distribution, could be a major function for local bodies. Ashburton's even had its own appliance showroom.

The reforms transformed the electricity industry at all levels throughout the country and ended existing generation, retail and distribution arrangements. Electricity Ashburton Ltd was formed to run Mid-Canterbury's line and distribution business, trading today as EA Networks.

Unusually, compared with most of the rest of New Zealand, the business became a co-operative owned by the people it supplied. Today that's about 13,000 consumer shareholders and Ashburton District Council (~19,000 electricity connections). Under the reforms, the Commerce Commission regulated lines companies because of their monopoly position. Middle-men retailers sold electricity to consumers along the power lines provided by the likes of EA Networks.

Today, the company has about 125 staff operating over 6200 square kilometres between two of the South Island's mightiest rivers, the Rangitata and the Rakaia, from the mountains to the sea. It has built and maintained some 3000km of lines, both underground and overhead.

Change has been part of business life since the 1970s, much of it due to irrigation for Mid-Canterbury's farmers. That growth accelerated from 2000 when the company's capacity grew from 40 megawatts to about 200 megawatts. EA Networks – the name was adopted in 2012 – had to build, build, build to keep up.

Its co-operative nature with an emphasis on community led to ventures big and small. It was a cornerstone investor in a 50-50 joint venture with farmers in Barrhill Chertsey Irrigation to build a scheme to irrigate about 13,300 hectares. Without EA Networks' help, the scheme would not have proceeded. Its farmers were facing tough times.



"It was a catalyst to secure the water and get the scheme up and running," says Chief Executive Gordon Guthrie. The scheme completed, however, EA Networks is selling its holding to the farmers who will directly benefit from its operations.

In 2008, when a need arose to improve communication between sub-stations, radio communication being poor, EA Networks opted to install high-speed fibre optic cable between them. Making the pipe bigger gave people along its path access to the network.

Similar thinking existed with the building of a series of co-location or data centres. EA Networks required a highly-robust infrastructure and it had to be a minimum size. But its capacity was more than the power company needed so it opened up the facilities for others to use, including the Ashburton District Council. The company has been through a long phase of huge growth. That, Gordon says, is flattening out. It diversified within essentially the same business model. But the industry was continuing to change, thanks to evolving technologies, and that change would be disruptive.

Scenario

EA Networks needed to look beyond being a traditional lines company doing a reliable job of keeping up power to consumers.

Commercial Manager Jeremy Adamson summed up the future: "We know that disruption is coming. What it looks like? Who knows?"



One change EA Networks embraced was providing ultrafast broadband via fibre. But bigger changes loomed including electric cars, with governments around the world setting targets for the demise of the internal combustion engine. The company installed three charging stations in Ashburton, Rakaia and Methven for such vehicles. It was new but core business.

Solar panels are already commonplace. The company had to be ready for more of them. Mid-Canterbury was well placed for such a source with about 2000 sunshine hours a year. Or it could provide the likes of network batteries, large modules combined into distribution networks to provide backup in the event of outage, for example.

Not yet fully commercialised because of cost, network battery prices will inevitably drop. When that happens, servicing a small farming community connected to the end of a long and aged electricity feeder with poor reliability would not mean having to rebuild the entire feeder.

A network battery could be located upstream of the first connection. If the feeder was damaged, the battery would ensure continuous delivery of energy if the feeder was repaired in a reasonable time. That is the kind of thinking required today.

Consumer batteries are another possibility because people who wished to be off-grid needed a battery as well as on-site generation such as solar or micro-wind because neither could generate all day/night. Home batteries could also be used to arbitrage electricity pricing. Often peak electricity is more expensive than off-peak. A battery can be charged off-peak to obtain cheaper electricity during the peak.

EA Networks have to watch all aspects of the technology closely. Significant network benefits could follow including network resilience and reliability, peak reduction, fault response management, customer satisfaction and pricing.

The potential opportunities required a new way of looking at the business, of going from asset-centric, the company's traditional and trusted way of doing business, to customer-centric.

The mid-1990s reforms meant they lost much of their direct contact with end consumers, their shareholders. This is changing; They can become direct customers again.

They already had relationships with power generators and retailers. They were now in the box seat to forge relationships with the likely disruptors such as solar panel and battery manufacturers and distributors. They could shape the future of electricity in their region, even beyond.

While most customers might be happy just to flick a switch, others would have their own generator and sell excess power generated from that source. Power flows would be multi-directional. EA Networks could manage all that because their business was the only one which could do that. A retailer couldn't. Further, they have to deal with customers the way customers want. For modern customers, that includes smart phones or social media.



With the Commerce Commission measuring lines companies on reducing outages and the length of outage time, better customer communication to reduce such outages naturally benefited core business. It could be via an app.

Every development, however, had to be measured against supporting the core business. Did it support customer engagement, or make the company relevant to the consumer in the future? How could EA Networks change its systems and approach to consumers to make sure they remained relevant in a fast-changing world?

It had long been obvious, however, that something else had to happen before the potential of a changing world could be recognised. They had to look at their own systems, many of which were at the end of their life cycle. The company pondered, Jeremy said, "how can we make this machine work better so that it's fit for the future?"

They did not want to see potential in an opportunity and find their own internal processes let them down.

Gordon Guthrie had been chief executive for 17 years. His company had been at the forefront of change he enjoyed. He wanted to stay there. In 2015, he knew they needed some help to do that. They were a typical organisation with legacy systems. They had databases all across the organisation, holding the information they were designed for but they didn't share it very well. They needed to pull that information into one place so that they could use it for analysis.

They could then develop and drive insights into decision-making and planning so they knew what was happening electrically in the network and analyse that with the financials and other sources of data. Said Jeremy: "We have nodes out in the network which are grabbing information every five seconds. But we haven't had the tools to use or manage it. Our data management wasn't very good. We didn't have in-house a lot of those skills that you need around data management or even designing those systems. "We knew that what we had was not fit for purpose going forward. Nothing was broken, it just wasn't particularly efficient.

They needed a single source of the truth, quality, reliable data, to do what they did better.

The Solution

They approached Montage, the Christchurch-based specialists in Business Intelligence (BI), and developed a partnership that continues to this day.

Leading the project was Duncan Turner, Montage's Practice Lead - Business Intelligence and PMO. The first step was to undertake a BI Discovery, through which Montage would go through the business, a consulting-led piece of work, requiring buy-in and commitment. It's designed to ensure an organisation has an optimal BI solution that is scalable, flexible and cost-effective.

Said Duncan: "Discovery is strategy-led and very much around: 'Where are you currently at? What's your current level of maturity?' Where do you want to get to and we can then put together a sustainable plan to get from A to B?"

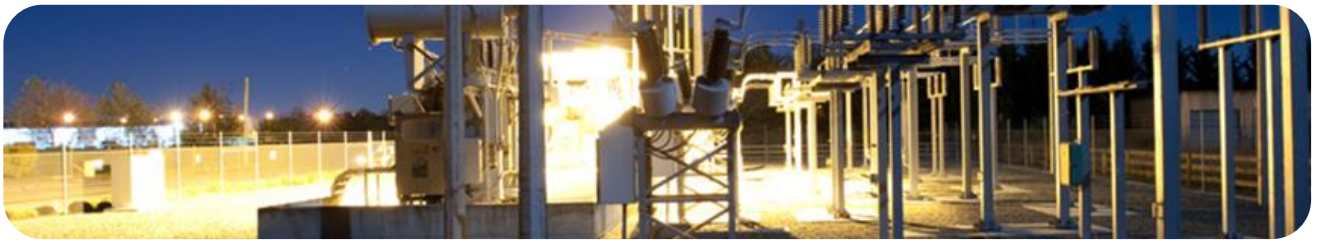
To answer such questions, Montage uses a scorecard to look at people, processes and technologies and their capabilities in areas critical for a successful BI programme. EA Networks really bought into the process. "They were aware they had lots of data but no information. And they weren't using good information to support decision-making at a higher level."

Jeremy remembered: "They came and did a Discovery. They looked under the hood. They interviewed a bunch of people. They asked all sorts of questions. They reported on that and gave us a synopsis of what they found."

Said Gordon: "I guess that was the eye-opener." That led to Montage's recommended road map.

Following the Discovery, the first phase of work laid the foundations of their BI solution. The solution scaled out through other low scope, high impact projects. The projects enabled EA Networks to get to know Montage and how they worked and to see the skills they could bring. They knew about projects and how to prioritise them.

The programme supported EAN's strategy to strengthen their information infrastructure where data could be easily accessed and used for planning and insights and shifting away from disparate databases to more combined (integrated) systems. The development of a data warehouse where the company could use its flood of data was key.



The company had many very skilled, highly intelligent people with vast experience. Those people could make gut decisions because they knew what had happened in the past and they knew intuitively what had to be done.

Like many businesses, EA Networks had a looming succession issue. What happened when those people were no longer there, and a new junior engineer or planner who didn't have that insight or experience about the region or network was in place? Processes had to be systemised and properly documented with analytics. That couldn't happen without up-to-date information.

To compound this, at any one time, EA Networks could be working on 100 or more projects. The company was already concerned a couple of mission-critical projects might fall over. EA Networks talked to Montage and arranged a PMO Discovery to evaluate their Project Management maturity; the Discovery revealed that their concerns were justified. Could Montage help resolve the problems?

Montage prepared a consistent approach for planning and delivering projects – a Project Portfolio Management Framework. To support their number one project, which was at risk of failure, Montage provided project management skills. The highest priority project was significant, moving all the asset information out of an old database into a new Enterprise Resource Planning (ERP) solution.

EA Networks also wanted to undertake a lot of transformation and change. They wanted a customer relationship management system, they wanted to change how they communicated with their customers. They wanted to use mobile technology to send text messages, for example, to affected customers when there was an outage.

They had projects they wanted to run but they were stretched for resources and unsure about priorities. Montage quickly found they had some areas of improvement to make in their PMO capability, Gordon said. A number of system developments were occurring at once and were not as organised as they could have been. Some were more successful than others.



Two kinds of projects were occurring – business-as-usual projects such as building the network, and systems-change, one-off projects. Among the issues discovered was the lack of an over-arching view of how projects were impacting on each other and staff.

A Geospatial Information System and Customer Information Project were being worked on by different teams. Managers started putting time in people’s diaries to work on the Customer Information Project while at the same time the same people were being targeted by the GIS team to help with their projects. They were also taking them away from their day jobs, which were busy enough. Montage showed them how to co-ordinate and prioritise.

Again, that was part of the evolution, Jeremy said.

Said Duncan: “We could help them prioritise what they had to do and make sure the right people were doing the right things at the right time. That would help them shape their strategy to being much more customer-centric, still keeping the lights on and well-connected, keeping everything humming nicely, but also adding this extra string to their bow.”



The EA Networks-Montage partnership for the past two years has been putting in place all the Business Intelligence and PMO pieces so that the company knows when opportunities in the disruptive new world come, they have the organisational capability to grasp them and know their back-room systems won’t let them down.

The Montage relationship is continuing. Said Duncan: “We’re still working with them, moving things forward. They’re a cool company.”

For Gordon and Jeremy, there’s satisfaction in knowing they’re now at the leading edge, ready to take that another step further. They didn’t just reach that conclusion themselves – auditors and outsiders who know their business told them.

Results

Many benefits had already been realised, Jeremy said. They were largely in the plumbing. Completion of that meant other benefit realisations could begin. An analyst has been hired to leverage the investment in the data warehouse and Tableau – EA Networks chosen data analysis and visualisation tool.

More and more information from the systems Montage have connected are being released. With controls and checks and balances all the way through, the company can finally have confidence in its data.

On the PMO side, they have a far better grasp on project progress.

“Overall, they’re better managed,” Gordon said. “We have some discipline around that. We have all these projects and it helps us make them all work together in an organised framework. I don’t know what would have happened if we had just carried on as we were. Outcomes wouldn’t have been met. We are still to realise the ultimate benefit, I think.”

“[Montage] are constantly delivering, whether it be a real tangible or intangible benefit. We see benefit realisation on a monthly basis”

There were indirect benefits, such as having a Montage Project Manager, who spends two or three days a week with EA Networks, as part of the team. “Having their skill-set on the Asset and GIS projects and almost being like a linking pin between the two has really helped facilitate better timing delivery of those projects, even though they’re still a work in progress,” said Jeremy. Duncan is also proud of what has been achieved. “They have transparency of their projects and know how they are performing; and are able to make decisions based on facts,” he said.

They know Montage staff are battling for them. They even bring them in for talks with suppliers or into other discussions, knowing it will either help them or help Montage staff understand the business which will lead to further efficiency later.

“We’re a reasonably big company in Ashburton but small in the New Zealand context and we do find getting particular skills to come and work for us quite challenging,” Jeremy said. “So you often have to have that third-party consultancy arrangement to get access to that skill resource. They certainly filled that gap for us.”



“I like their approach which is to essentially build but then hand over and then come back in a support function. They don’t want to be constantly at the forefront. They do want to hand back and give it to your internal people to work and then support. And that model really resonates with me. That’s where the trust comes in.”

Did Montage deliver?

“They’re delivering,” said Jeremy. “There’s no past tense. There’s this constant evolution. They are constantly delivering, whether it be a real tangible or intangible benefit. We see benefit realisation on a monthly basis to some extent.”