



ABOUT THE COMPANY

Redland City is a “city of islands” with six residential islands including North Stradbroke Island, the four Southern Moreton Bay Islands and Coochiemudlo Island, as well as mainland villages and suburbs located east of Brisbane. The council area services around 150,000 constituents.

The council’s Information Management Group has 57 full-time equivalent staff as well as a small number of contractors.

Case Summary

Location: Australia

Vertiv Solutions:

- Liebert® CRV
- Liebert® APM UPS
- Liebert® MPH2 Intelligent PDU
- S-Series Racks
- Generator

Situation:

Redland City Council has seen the footprint of its ICT equipment shrink over the years as hardware form factors get smaller, and its next refresh will bring about further consolidation. Despite needing less space to house ICT, the council had two aging data centres and was spending more and more to cool a small amount of ICT in a large space. An external review in 2015 found the existing data centres were inefficient and unfit for purpose. That led to a decision to retire them in favour of a smaller modular data centre and geographically-diverse disaster recovery facility.

The Council was also growing its staff numbers but was short of office space to accommodate them. A project that promised to free under-utilised floor space was an attractive prospect.

Critical Needs:

The Council’s primary and secondary data centres were approaching the end of their useful life. They weren’t tier-rated and were increasingly inefficient and expensive to run. The Council wanted to consolidate into a smaller, more efficiently managed space, which led them to buy a modular data centre that they could install at a depot site. The Council turned to Vertiv for a complete modular data centre solution and to Peak Services for their experience deploying similar facilities for other councils in regional Queensland.

Cloud services were considered but a lack of high-speed telecommunications infrastructure in the council area was deemed a risk to access. The Council also has a large field force of outdoor workers and wanted to keep its applications and the way they were accessed by staff as local and under control as possible.

REDLAND CITY COUNCIL

A Vertiv Case Study

The Solution

In mid-2016, Redland City Council went to market for its modular data centre. After evaluating a range of options, it settled on the Vertiv solution.

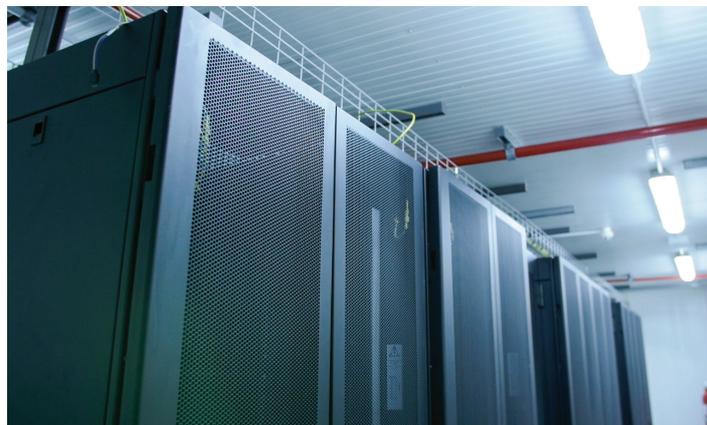
Peak Services played a key trusted partner role in the selection and design of the new data centre. They are a Queensland-based local government specialist and had deployed two similar facilities, which was an attractive prospect for Redland's Chief Information Officer Glynn Henderson.

"I could walk through, see what I was buying, what challenges those customers had and how we might do it better," Henderson said.

The Vertiv data centre is a 42 m² self-contained facility that comes complete with state-of-the-art precision air conditioning and power systems. It has a 10-rack capacity, though the Council is currently set to use six.

Physically, the building uses a steel-framed, double-skinned, insulated Colorbond construction designed specifically to take the weight of specialist data room equipment. It contains both the data centre floor space as well as a staging area where the Council's Information Management Group can test new hardware before rack-mounting deployment.

The facility is also fire-rated and certified by a fire engineer, has fire-rated doors and is structurally certified. The building was constructed overseas and fitted out locally. It arrived in two pieces and was assembled by Vertiv specialists.



The Outcome

The whole process, from placing the order to handover, took four months. The initial fit-out will see six racks with redundant in-row CRV CRAC units and UPS backup support. Though the data centre will be able to handle a load of around 50kW - or up to 8kW per rack - the Council expects to run its racks at a lesser density.

The efficient design of the Vertiv facility is expected to pay dividends.

The Council will be able to run its ICT equipment hotter because it is housed in a compact and well-ventilated space. Redland City Council is moving from a space where ICT equipment occupied just 30 percent of the room, to one where it occupies about 85 percent.

Henderson anticipates a 30 percent reduction in electricity costs and 70 percent reduction in CO₂ emissions due to the use of more efficient plant and equipment.

"That's really important because we're a very eco-focused city," he said.

In addition, the Council has also reclaimed 150m² of floor space in its buildings. One of the old data centres will be reused to store paintings and other climate-sensitive assets. The other is now fitted with desks for 15 people.

Henderson said the project had gone "very well".

Being a coastal council, its future could involve coordinating an emergency response to natural disasters such as fires or storms.

"One of the great things about having a compliant and highly resilient data centre is the ability to react quickly



around disaster management. That's a big thing for us," Henderson said.

"As the City develops into the digital age and we increase the digital footprint in some of our newer city expansions, we'll see a lot more requirement to connect services and utilities digitally.

"We can collect data and provide it to our commercial sector and residents, which will hopefully lead to further opportunities for tourism and economic development in our island environment."

Peak Information Manager William Osborne said the project highlighted Peak's understanding of modular data centres and its specialist skills in scoping government projects.

"This has been a highly successful partnership between ourselves, Vertiv and Council. Throughout the project Council have expressed confidence in the planned and realized outcomes," he said.

Osborne saw the relationship between Peak and Vertiv as "mutually beneficial" and as a "strategically important to Queensland initiative."

"The relationship recognises a need to match market needs with the capability that Vertiv delivers."

"Councils are different from other entities in that they spend public money. They're accountable to their rate payers for the spend, so anything they do spend must be done in a transparent and open manner to demonstrate value for

money. From a supplier perspective, we keep costs down by looking at efficiencies in production, manufacturing, delivery and commissioning.

Vertiv also stood out from its competitors because it delivered a fit-for-purpose solution.

"What we found is a number of the many competing products and offers in the market tend to be inflexible. What separates Vertiv from other data centre providers is their ability to customise and tailor the solution to meet council needs. For example facility sizing, energy consumption and facility expansion," Osborne said.

"There's plenty of hype about smart cities and IoT but it's important to consider what infrastructure you need to pull that off," says Robert Linsdell, Managing Director for Australia and New Zealand in Vertiv. "You need something scalable, secure, robust and with as little risk of outage as possible. Redland City understands this, and they're taking the steps now to make sure they can do the exciting part in the right way later."

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