

### Company Name

New Zealand Defence Force

### Sector

Defence

### Location

Wellington, New Zealand



## New Zealand Defence Force secures nation's interests with APC



**The New Zealand Defence Force (NZDF) is responsible for securing New Zealand against external threats and protecting its sovereign interests, including the Exclusive Economic Zone.**

NZDF comprises 9,051 regular force, 2,240 territorial force and 2,261 civilian staff across the armed services of Navy, Army and Air Force.

Critical to the ongoing protection of the nation's people and interests is the NZDF's information systems. From decision makers in Wellington to tactical commanders on operations overseas, NZDF requires 100 per cent IT systems availability at all times. Systems downtime does not just cost money, it involves the lives of Defence Force Personnel and New Zealand's national interests.

The NZDF operated out of the same building in Wellington since the 1930's. The old building lacked scalability to accommodate growth or change. The building's network and telecommunications infrastructure was aged and there was no electrical, racking, environmental standards or building monitoring.

The organisation was divided into four different areas in the old premises – the Army, the Navy, the Air Force and Headquarters – which all had their own separate IT budgets and IT infrastructure. There was no centralised management capability across the different IT networks and few shared IT resources. IT services were scattered over different floors which made IT service management time consuming and very difficult to support.

"We recognised a need for a more holistic management approach across the different areas within the organisation, including their IT environments," said Richard Hitchcock, Programme Manager, CIS Branch, New Zealand Defence Force.

"We also required a new IT environment that would reduce the high cost of IT systems management and the complexity of the environment while increasing staff productivity and systems reliability.

To support this new IT environment and its other management objectives, the NZDF required a new purpose-built building that could cater to its unique security needs.

### Solution

The NZDF moved into its new building in Wellington in January 2007.

NZDF worked with APC to design, customise and implement the organisation's extensive data centre infrastructure, including racking, power and environmental monitoring and power protection.

### Business Challenge

- > IT staff were spending too much time managing individual data centres
- > No solution for environmental monitoring placed the organisation's systems at risk
- > The data centre environments lacked scalability to accommodate growth or change

### APC Solution

- > 4 InfraStruXure Type B solutions
- > 22 InfraStruXure Type A solutions
- > InfraStruXure Manager, a management platform that provides visibility across multiple data centres
- > Environmental monitoring unit that measures motion, humidity and temperature

### Business Benefits

- > Centralised management simplifies administration and fault resolution, providing the IT staff with significant productivity gains
- > High availability design to meet today's IT dependence
- > Standardised modular solution with some customisation to meet the Defence Force's unique security requirements
- > Scalable power, and rack solution that can be expanded easily and cost-effectively as the organisation grows
- > Compatibility with key Global Defence organisations
- > Remote monitoring to avoid downtime by alerting IT team of anomalies by SMS



NZDF deployed APC's InfraStruXure solution, an on-demand architecture for network-critical physical infrastructure (NCPI). It consists of pre-assembled components including modular and scalable UPS, power distribution units, metered power rails and rack enclosures, as well as remote and environmental monitoring.

"The new Defence building houses four separate data centres and around 900 personnel, each with a unique set of IT requirements. We deployed four InfraStruXure Type B solutions in the data centres and 22 InfraStruXure Type A solutions in the organisation's telecommunications rooms.

"We also deployed InfraStruXure Manager, a management platform that provides visibility of the different telecommunications rooms and data centres by outlining the health and status of all APC devices," said Hitchcock.

NZDF also implemented APC's Environmental Monitoring systems in all the data centres and telecommunications' rooms. The appliances monitor temperature, humidity, water leakage and movement in the rooms and alert IT staff of any anomalies.

### APC delivers customised, scalable data centre solution on time and on budget

The InfraStruXure design allows the selection of standardised components to create a solution that is easily customised, modified or expanded to suit an organisation's changing requirements. This flexibility and customisation was important for an organisation like the NZDF.

The NZDF's data centres are independent of each other due to different security requirements and classifications associated with the data that is processed. The NZDF needs to maintain a level of accreditation to be able to operate and interconnect with its global allies. APC's InfraStruXure solution lets the organisation ensure that accreditation.

"We were able to give APC our specific requirements, and APC's engineers then came back with a solution that was working, within budget and within time. For example, some of the data centres have unique security requirements around power. To solve that problem, APC took an off-the-shelf product and added some specialist Defence components to build a new solution," said Hitchcock.

### Centralised management delivers security and productivity gains

InfraStruXure provides NZDF with a centralised management system, including remote access to the organisation's servers. All NZDF's telecommunication closets and data centres are monitored and information is reported in real time to operators, using a GUI-based reporting system, 24 hours a day.

The system proactively alerts the IT team via SMS to any irregularities, so that potential issues do not lead to system failure.

"We were able to give APC our specific requirements, and APC's engineers then came back with a solution that worked, within budget and within time."

"InfraStruXure gives us a level of management not available from any other solution. The remote management system gives visibility into the total infrastructure not just servers. It allows us to remotely monitor and control power, temperature, humidity and detect moisture levels in the data centres," said Hitchcock.

Another benefit of the new system is the reporting functionality, which allows Hitchcock and his team to find out exactly how much power individual racks use.

"Our Computer Support Officers (CSOs) can tell you what each rack is using in terms of power and if the level of redundancy is sufficient. We even know when someone has opened a rack door. The system will also alert our CSOs if there is insufficient power available when they add servers," said Hitchcock.

According to Hitchcock, the remote management capability is a significant benefit to the IT team given the lengthy processes and procedures involved in securing physical access to the national Defence Force's data centres.

"Now our IT staff can resolve and manage data centre issues via a management console which has freed up our time significantly," said Hitchcock.

"These days main data centre is pretty much lights out. People only go in there to change tapes or fix something that is physically broken. They can now spend more time addressing user problems rather than worrying about what is going on in the data centres."

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