# IBM Virtualisation Means 'Less is More' At The Royal New Zealand Foundation of the Blind

## Overview

- ***The Challenge***
  *The Royal New Zealand Foundation of the Blind (RNZFB) was running a wide variety of software applications running on multiple servers across the country that required IT staff to spend a huge amount of time backing-up and on maintenance.*
- ***The Solution***
  *Multiple servers were consolidated on two IBM 445s running VMware™ virtualisation software.*
- ***The Benefits***
  *The RNZFB is already reaping the benefits of its new IBM server technology. Drastically less time is being spent maintaining servers, enabling resources to be used more efficiently, and it has noticeably reduced costs. Upgrades become available to everyone – and everyone benefits – and because virtual servers can be delivered quickly, new projects can be completed faster and more cost effectively.*

**Why IBM?**

VMware is a global leader in server virtualisation software.

The RNZFB is a not-for-profit organisation that provides its 11,500 members with specialist habilitation, rehabilitation, education and support services. The organisation's network covers the entire country, with over 300 staff based in19 locations – many of whom are blind or vision–impaired.

Following his appointment to the RNZFB, ICT manager John Holley found himself wrestling with a not uncommon problem: how to cost-effectively upgrade the organisation's multiple servers while leaving enough in the coffers to complete other IT projects.

> *"The adoption of VMware enabled the RNZFB to replace ageing hardware and run just two physical servers. We have a more secure, robust system that is easier to manage and allows us to work smarter. Upgrades are quicker and disaster recovery capability has been significantly improved. The time we have to spend backing up and maintaining servers has gone down to almost nothing."*
>
> *– John Holley, ICT manager, Royal New Zealand Foundation of the Blind*

*"A fundamental issue was the excess of servers, and the fact that they were all old NT servers, which had security implications as well as limiting the overall robustness of the RNZFB's system. With, for example, more than a dozen individual boxes at head office alone the time spent backing up and keeping servers online took up a huge amount of the ICT team's time."*

*– John Holley, ICT manager, Royal New Zealand Foundation of the Blind*

**Maximising the budget**

In addition to server consolidation, the RNZFB had a considerable IT wish-list including, upgrades to Citrix, directory service, upgraded file services, backup and email systems, improved shared storage, fibre channel infrastructure development and the purchase of new laptops and desktops.

"Our Information Systems Strategic Plan had envisaged implementing this wish-list as and when budget and resources allowed. However, our IT project partners, Gen-i, proposed a solution that combined much of what we wanted, within existing budgets and some 6-12 months early.

"In short, Operation Concord aimed to bring unity and harmony to what was at that time, a fairly chaotic and complex IT environment. Of course the bottom line was that everything be delivered within budget, on time and all work needed to be handled by the RNZFB's three ICT support staff – who also had to be able to deal with day-to-day operations," said Holley.

**The business challenges**

The RNZFB's network is spread across the country with over 300 staff based in 19 locations. The organisation uses a wide variety of software and applications including Jade Community Health Care System, Raisers Edge Fundraising System, Epicor for accounting, Telephone Information Service, Altiris and Citrix – all of which have to be accessible to the RNZFB's blind and vision–impaired staff. The organisation has a 50/50 mix of PC desktops and laptops, with around 160 users having some degree of mobile access.

**A virtual solution**

"VMware enabled us to consolidate the RNZFB's multiple servers into virtual environments housed on just two physical servers (IBM 445s, which have linear scaling up to 32 servers), meaning we could work smarter and make fiscal and resource savings.

VMware is a global leader in server virtualisation software, which allows the consolidation of applications on the same physical server. Virtualisation software allows applications to sit side by side on the same physical server, yet remain completely isolated. There is no longer any need to have dedicated servers for each application.

"For example, say you're planning a business initiative that you know is going to result in a massive increase in web traffic. In the 'old' days you might have had to go away and develop a business case to put to management. It could be a month until you got approval."

"The IBM 445's used by the RNZFB are, in my view, the most popular virtualisation platform in the world. So, to handle that increased web traffic for example, you would just go and turn on additional servers, which might take up to 15 minutes!"

For John Holley the benefits are easily measured: “The time my guys have to spend on the servers has gone down to almost nothing. If we need to do anything on them like dual fibre or network switches or UPSs – there are only two physical servers to attend to. It’s much simpler.”

**Upgrading as simple as one, two**

“Virtualisation makes implementing a physical upgrade easy. Quite simply, all the virtual servers housed on one physical server are moved across to the other server – they carry on working, people don’t know about it. You do the work and then bring everything back across – everything keeps on working, there is no shutdown. This has enormous benefit when it comes to upgrading programmes like Citrix or our email system,” Holley points out.

**Delivering the promised benefits**

Holley regards the project as a complete success and credits Julia Fagan, Gen-i’s project manager, with keeping things on track. The proposed solution was implemented in a short time frame whilst ensuring ‘bang for bucks.’

“Through careful planning, rigorous project management and negotiating good prices from our suppliers we could deliver much more of the RNZFB’s wish-list,” said Fagan.

“Together we delivered an IT infrastructure that is stable and supportable. It wasn’t just about the cost benefits inherent in reducing the physical number of servers – it was the freeing up of staff members from the time-consuming business of maintaining servers so they could get on with the myriad other tasks that today’s IT staff are expected to undertake.”

**Future directions**

Holley has been so impressed with the ongoing benefits of the project he is planning to utilise the technology further.

“I’m hoping to have a business continuity site hosted by Gen-i so we could say, ‘We need to do some major work on our servers’ and, providing we have the right business continuity, we could use Vmotion to move stuff across, keep things going, work on the servers here and then move it back across – all with a high degree of reliability.”

The RNZFB is also considering sharing its ‘best practice’ infrastructure with other community organisations facing similar challenges.

**For more information**

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