



## Toll delivers on time with total system and infrastructure replacement

With a government handover looming, Toll was tasked with replacing all of the IT and communications systems and infrastructure that supports more than 600 users across multiple businesses units...

**W**hen former Prime Minister Helen Clark officiated at the handing over of rail and ferry services to the government, she will have had little idea of the dramatic IT transformation that set in motion.

Along with the trains and interisland ferries that Toll New Zealand sold to the government went the IT infrastructure required to run the businesses. That left Toll in urgent need of replacement systems to be able to continue to operate its freight businesses.

Under the deal with the Crown, it had exactly one year to put in place new systems — data centres x 2, storage, servers, virtualisation, WAN network (55 sites), desktops, VoIP platform and a fully outsourced ICT model. It had to design and implement the new set-up, decide how to provide ongoing system support, and cope with the sudden migration of Toll's 55-strong information services group (ISG) to KiwiRail, the new owner and operator of the country's trains and interisland ferries.

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Toll IT manager Allister Lowe. "We couldn't afford to be constrained by bureaucracy and policy — all those things that normally get in the way of large IT projects."

Toll's ISG team had managed local and wide-area networking, desktop and back-end systems and support for Toll's various business units, some of which also had their own IT manager. Lowe had been in charge of IT for Toll Tranzlink, the biggest remaining business unit after the rail and ferry businesses were sold.

When the ISG team moved on, Toll Tranzlink assumed the corporate support role for the remainder of Toll's business units, placing Lowe in the IT hot seat. He had a number of options for filling the void left by the departure of ISG.

"One option was to recreate the team, another was to outsource everything to the Toll Group IT team in Melbourne and the other option, and my preferred choice, was to outsource locally to an IT&T service provider."

Toll went to market for proposals from potential service desk, data centre, storage, server, virtualisation,

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WAN and security providers. It also had an invaluable three-year-old existing relationship with Fujitsu, on which it was able to draw to reconstruct the systems that now belonged to KiwiRail.

“The relationship was such that we entrusted Fujitsu with the design, make-up and build of the infrastructure layer for Toll’s new IT world,” Lowe says.

Fujitsu’s expertise with NetApp storage area networks was an essential element of the arrangement. So was its ability to design a virtual desktop infrastructure (VDI) — or “zero-client” network — for Toll’s 600-plus users.

Raymond Dickinson, leader of the Fujitsu team of six who collaborated with Toll on implementing the new systems, says it was a case of working closely with Toll to support its business requirements, one of which was minimising ongoing desktop management.

The beauty of VDI, of which Toll’s installation is New Zealand’s largest, is if there’s a hardware problem, the faulty terminal can be unplugged and a new one substituted, which the user activates with a swipe card thereby accessing their profile and applications.

Although Toll presented Fujitsu with a daunting amount of work, Dickinson says as a green-field implementation there was no existing infrastructure to try to incorporate into the system architecture.

“Toll presented Fujitsu with three main challenges. The reduction of its capital and operational costs, to

simplify the ongoing management of the infrastructure and to complete all aspects of the project within a very tight timeframe,” says Dickinson, “all of which we were able to accomplish.”

The new set-up consists of data centres in Auckland and Hamilton with more than 100 virtual and physical servers on HP BladeSystem racks, two NetApp SANs, a Cisco voice over IP system, the VDI network, almost 50 wide-area network circuits to Toll’s facilities up and down the country, and two transtasman links.

To complicate matters, Lowe says, it was impossible to switch from the old to the new IT world in one go, with the two having to be run in parallel for some time. And on top of that, the project went ahead while Toll was acquiring a large Northland trucking firm, launching a parcel delivery service and expanding its Auckland airport warehousing operation.

“If you look at traditional IT projects, this one was unconventional in its approach because there was so much that had to be done in so little time with such high risk.

“The agreement with the Crown was such that there were severe penalties if our systems weren’t completely separate from KiwiRail by year end — it was a non-moveable date. And we achieved it.”



 **CASE STUDY**

> Toll

 **AT A GLANCE**

**Industry**

> Distribution

**Business Objective**

> Toll New Zealand had to replace all its IT and communications systems and infrastructure in the space of a year after selling the company’s rail and ferry operations to the government, with its existing IT set-up changing hands as part of the deal.

**Solution**

> Systems integrator and hardware supplier Fujitsu was brought in to design and build the replacement systems and infrastructure and work with Toll’s hosting and data centre provider.

**Business Benefits**

- > Complete infrastructure separation
- > Delivery to a fixed deadline
- > Business continuity & growth accommodated
- > PC management eliminated with virtualised “zero client” desktops
- > Cost reduction and simplification of infrastructure management

 **FOR MORE INFORMATION**

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