



# Learning fast

To do its job properly, The University of Auckland needed a faster, more reliable data network.

Imagine your office IT system catering to 12,000 different devices at once and you'll have some idea of the issues The University of Auckland have to deal with. The University is a hive of intense activity with students and lecturers working in different sites around the city, all of them with their own files on the servers.

It's a recipe for a headache for any IT manager, especially when your bandwidth is stretched to the limit and you're starting to get grumbles from people who can't always get their data when they need it.

## Getting the telcos up to speed

Two and a half years ago Rob Beattie faced that situation when he took on the job of The University of Auckland's Network and Communications Manager. A five-year-old ATM network was becoming rapidly outdated and the performance of the system in linking the campuses was inconsistent to say the least. Congestion was a frequent problem.

There were also issues like disaster recovery and redundancy to consider, but the nub of the problem was simple – the pipes were too narrow and a newer, much faster system was required. As Rob puts it succinctly “The network mustn't constrain the university from doing its core business of teaching and research.”

When the job of replacing the network was investigated, it soon became obvious that only full-service telcos would be able to offer a solution. But the first responses were not particularly satisfying, with all parties getting it wrong a few times. They were offering solutions that were more about their own systems than the University's needs. It finally took TelstraClear to come up with something that would really work.

- Client:** The University of Auckland
- Business:** Tertiary-level education and academic research
- Opportunity:** Speed up staff and student links with the University servers and allow remote teaching and research collaboration.
- Solution:** A 10Gbps dedicated ring network owned by the University
- Outcome:** Faster, more reliable access for students, and new opportunities for staff



Rob explains. “The breakthrough came when TelstraClear said to us, ‘Why don’t we build you your own network?’ We didn’t wish to start digging up the streets and laying fibre, but TelstraClear were able to oversee a project that would give the University a fast, scalable system with a huge potential for growth.”

### **Giving the University a Ring**

The solution was not the usual “star” structure, but a ring that connected the main campus sites of City, Epsom, Tamaki, and the Grafton Medical School with dual fibre running both ways for added security.

As it happened, the technical design actually ran ahead of the commercial process for a while, but careful and close work with the University saw the specifications of the system start to reconcile with the budget. That reconciliation took the form of a 10Gbps system, installed over a nine-month period. Having the system go down was not an option, so tests were extensive with aspects of the technology deliberately “broken” to test redundancy capabilities.

The University is now beginning to unlock the potential of the new network with its 64-fold speed increase over the old one. For students and lecturers, saving files from desktop to server is now simple and immediate. Data storage can be shared across several sites and backups now taking substantially less time instead of all night as they used to.

### **Unlocking the capability of the system**

More exciting is the potential of the unconstrained bandwidth. This allows for the delivery of multimedia systems like access grids, a kind of supercharged videoconference where multiple cameras and microphones allows research to transcend space and time. With The University of Auckland taking part in the Advanced Research Network (KAREN), the technology permits total collaboration and communication, nationally and globally.

For both TelstraClear and The University of Auckland, the project has been challenging but rewarding. The last word is Rob Beattie’s. “We needed serious bandwidth and we needed high reliability, and that wasn’t necessarily going to come from a pre-packaged solution. TelstraClear were the ones to get it. They thought outside the box, and for me that was a first.”



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