

NBN & UFB: getting down to the wire

*The NBN and UFB projects have dominated the national and tech media headlines ever since their inception, usually due to squabbling over which technology should be used, who's paying for what and whether progress has been fast enough. iStart asked Australian telecommunications policy advisor **Paul Budde** and New Zealand's Minister of Communications and Information Technology, **The Honourable Amy Adams**, to take a step back and discuss the big picture for the NBN and UFB project rollouts respectively. The results offer some stark contrasts, with one project catapulting its country to second place in the OECD for annual growth of fibre subscriptions while the other lags behind...*



Paul Budde: NBN – this is as good as it gets

While we can argue that what Australia will get from NBN 2.0 is a second-rate version, the reality is that, with the new deal with Telstra now inked, for the foreseeable future this will be as good as it will get.

It looks as though all parties agree that under this new contract the multi-technology-mix (MTM) can and will be rolled out. However Telstra covered itself, with NBN Co taking care of any unexpected extra costs related to the MTM rollout. The minister is happy with that arrangement and is convinced that these costs will not blow out – but only time will tell.

Further to that we will never know if the MTM version will indeed be cheaper. It is hard to trust the Government on this. The previous Government claimed that it would be able to deliver the first-

class fibre-to-the-home (FttH) version for roughly the same cost as this Government will deliver its second-rate version. Both these plans were costed at around the A\$40 billion mark.

In the meantime Australia wasted another year where very little broadband progress has taken place. This has happened repeatedly over the last two decades, with the result that Australia is at the bottom of the OECD heap in high-speed broadband connections. Increasingly we now hear ordinary people (not just the geeks) complaining about the quality of their broadband; and it will get worse before it gets better, as no major results of these new arrangements are expected to hit the road in any significant way before the end of next year.

As we have said repeatedly, the big winner from all of this continues to be Telstra. It had already negotiated a fantastic deal under the previous

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“Provide a comprehensive fibre network at least ten years before it would have been economically viable.”

Government, and under the new deal with the current government that lucrative deal remains in place, with a range of new concessions on top of it – and for Telstra they are changes for the better.

The overall deal stayed the same, so theoretically that will result in a smooth transition. Instead of simply disconnecting and discarding the old copper and HFC cables, they will now be transferred to NBN Co – hardly any skin off the noses of Telstra and Optus. However, in order to make the arrangements for a more complex multi-technology-approach to work, some of the more detailed elements of the contract required dramatic changes. This was the main reason it took so long for these negotiations to be completed, and at the same time it allowed Telstra to negotiate for a range of changes.

It opted to hand over the infrastructure assets in exchange for the right to continue to use the HFC network to deliver its Foxtel pay TV services.

The company has secured asset disposal restrictions if NBN Co were to sell the HFC or copper network after ownership is transferred. In certain circumstances these restrictions would require a buyer – such as another large retail service provider – to enter into a direct agreement with Telstra to purchase the assets.

Also, with at least some first-hand experience, certain simplifications to the contract have been

included that will have a positive effect on Telstra's costs.

But Telstra's greatest (extra) financial wins this time are in the area of maintenance. NBN Co has no skills – and also no capacity – to undertake the maintenance of the ageing copper network. There is no doubt that this network still has some life left, but the mid- to longer-term question is when will it become more costly to maintain old infrastructure in comparison with deploying new infrastructure. At a certain point in time this will have to be done anyway. In the meantime, however, these ongoing, increasing maintenance costs are becoming an interesting new revenue stream.

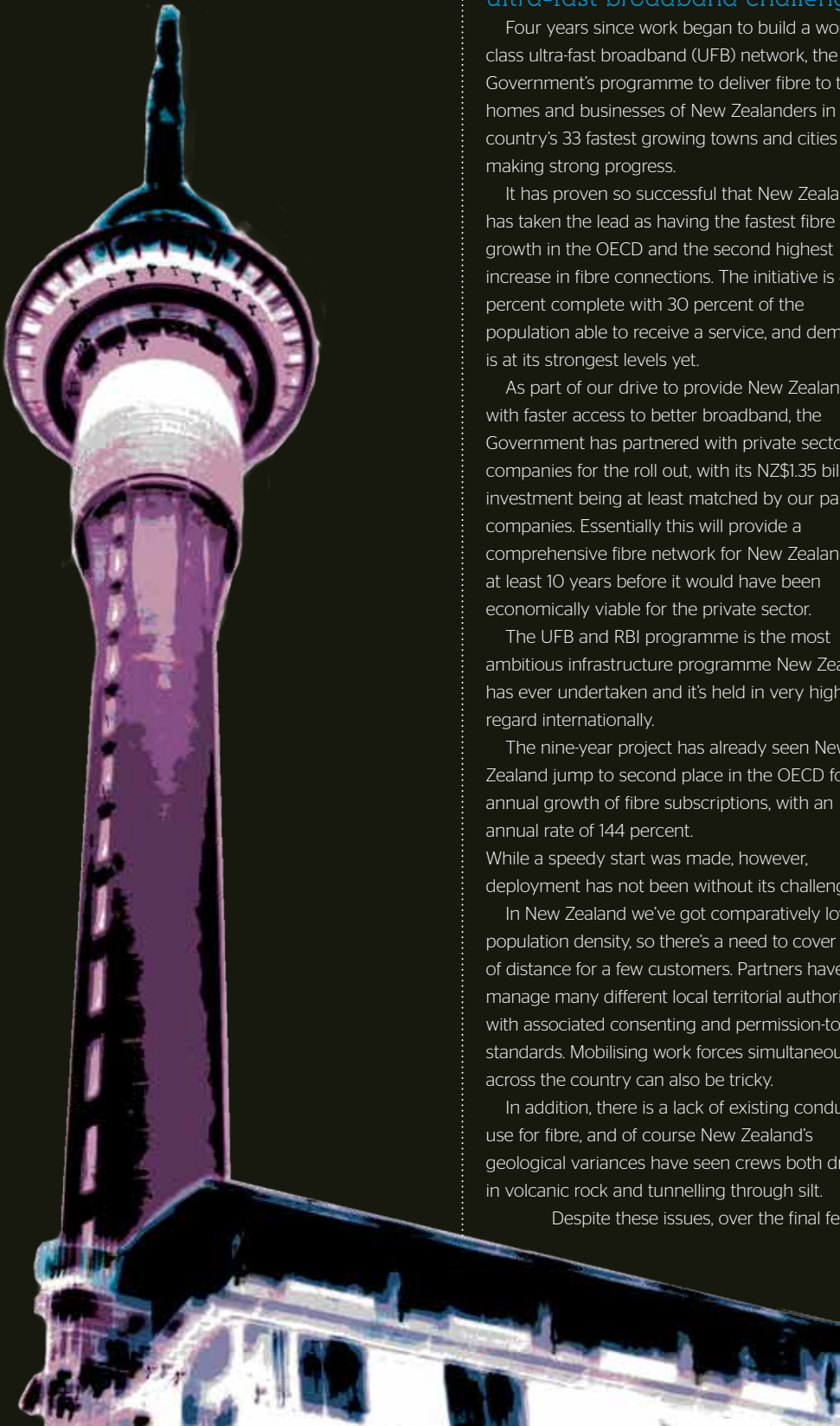
Costs will only increase as the infrastructure ages, and therefore a significant amount of money will need to be spent by NBN Co to maintain it; and Telstra is the only company with long-standing expertise in this field, especially in the more value-added areas of infrastructure planning, design, construction and maintenance. While there will be room for competition in the actual physical work, Telstra will be hard to beat in those other areas.

Both the minister and NBN Co have indicated that they understand that the new contract has the potential to increase the dominance Telstra already has in the market. However the question will be whether the delivery of the MTM NBN or the protection of competition will get priority.

NBN connections so far

Week ending Day/month/year	Brownfields			New developments (greenfields)		Satellite	Wireless		Totals	
	Premises passed	Premises serviceable	Premises activated	Lots/ premises passed	Premises activated	Premises activated	Premises covered	Premises activated	Lots/ premises passed/ covered	Premises activated
End of Q1 2014	340,956	246,073	74,465	93,897	36,570	43,934	77,806	11,673	512,659	166,642
End of Q2 2014	381,146	281,294	105,211	111,116	45,916	42,948	112,208	16,553	604,470	210,628
End of Q3 2014	419,896	334,288	144,529	128,481	58,189	41,642	129,158	22,624	677,535	266,984
End of Q4 2014	469,111	390,839	182,352	150,234	71,531	40,716	159,479	27,792	778,824	322,391
19 Feb 2015	508,089	436,390	206,447	159,384	80,011	39,986	169,111	31,165	836,584	357,609

Source: NBN Weekly report: <http://www1.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/weekly-progress-report.html>



The Honourable Amy Adams: the ultra-fast broadband challenge

Four years since work began to build a world-class ultra-fast broadband (UFB) network, the Government's programme to deliver fibre to the homes and businesses of New Zealanders in the country's 33 fastest growing towns and cities is making strong progress.

It has proven so successful that New Zealand has taken the lead as having the fastest fibre growth in the OECD and the second highest increase in fibre connections. The initiative is 40 percent complete with 30 percent of the population able to receive a service, and demand is at its strongest levels yet.

As part of our drive to provide New Zealanders with faster access to better broadband, the Government has partnered with private sector companies for the roll out, with its NZ\$1.35 billion investment being at least matched by our partner companies. Essentially this will provide a comprehensive fibre network for New Zealanders at least 10 years before it would have been economically viable for the private sector.

The UFB and RBI programme is the most ambitious infrastructure programme New Zealand has ever undertaken and it's held in very high regard internationally.

The nine-year project has already seen New Zealand jump to second place in the OECD for annual growth of fibre subscriptions, with an annual rate of 144 percent. While a speedy start was made, however, deployment has not been without its challenges.

In New Zealand we've got comparatively low population density, so there's a need to cover a lot of distance for a few customers. Partners have to manage many different local territorial authorities with associated consenting and permission-to-work standards. Mobilising work forces simultaneously across the country can also be tricky.

In addition, there is a lack of existing conduit to use for fibre, and of course New Zealand's geological variances have seen crews both drilling in volcanic rock and tunnelling through silt.

Despite these issues, over the final few

months of 2014 we saw a 39 percent increase in connections, taking connections across New Zealand to more than 10 percent, which is slightly ahead of projections at this stage of the build.

As of the end of September, 536,000 end users were able to connect. Whangarei, Te Awamutu and Oamaru have already been completed. Work will be finished in Cambridge, Tokoroa, Taupo, Hawera, Wanganui, Blenheim, Ashburton and Timaru by June 2015 and most towns and cities will have UFB fully rolled out by 2018.

For the rural programme the build is now 70 percent complete, with 282 towers having been upgraded and 98 new towers having been built to provide fixed wireless broadband to 213,000 premises. In addition 75,000 fixed lines have been upgraded.

Under current programmes, hospitals, schools and libraries in both rural and urban areas will receive fibre. More than 2200 urban and rural schools now have fibre installed and the managed network operated by the Network for Learning (N4L) is in place in more than half of those. N4L has been designed specifically for schools, providing safe, predictable and fast internet with uncapped data, online content filtering and network security services.

The results already being achieved are remarkable, with schools reporting that pupils are more engaged, their reading levels have improved, and absenteeism has dropped. Additional resources and training are being provided to ensure teachers are well equipped to make the most of the opportunities that digital learning provides to make learning fun, access the best educational resources, prepare their pupils for a digital future, and connect to other schools in other communities.

Our Telehealth initiative has particular benefits for rural communities. Being able to video conference gives rural patients quicker access to medical specialists, without the need for travel, and this saves time and money for both the patient and the health system.

These initiatives are only a small reflection of what we can achieve with UFB and RBI. As well as improving accessibility, a key focus is ensuring that ultra-fast broadband is then affordable for everyday New Zealanders as well as businesses.

One way we tackled this was to open up the telecommunications market to competition which has transformed the industry. Competition among major retail service providers has triggered attractive UFB offers for broadband customers, notably unlimited broadband plans.

As a result consumers are getting more value than ever before from their broadband and mobile plans. All the local telecommunications retailers are now selling UFB, and fibre entry-level plans are priced similar to the much slower existing ADSL copper broadband, while offering download speeds three or four times faster.

While providing access to affordable fibre-to-the-premise for 75 percent of New Zealand and improved broadband to 97.8 percent was a bold goal, we are certainly not resting on our laurels.

In a perfect world every New Zealand home and business would be connected to the highest speed and capacity possible and in that regard fibre-to-the-premise remains the gold standard. But in a country of just 4.5 million people who are widely dispersed across several islands, vast open spaces and

numerous mountain ranges, the economics of that is prohibitive. In fact the economics are such that without the Government's investment it is unlikely that the market would have provided the services now being delivered for many years, if at all.

We are, though, constantly assessing what more we can do to continue to lift connectivity for those outside the UFB footprint.

The Government has announced it will extend the target for the UFB programme to at least 80 percent of the country and invest a further NZ\$150 million into rural connectivity (fixed and mobile).

This will take our total investment across these programmes to around NZ\$2 billion.

It means that some South Island towns such as Motueka, Westport, Alexandra, Temuka, Cromwell, or Picton for example, could receive fibre.

We are currently working through the policy development for the extensions of these programmes and I look forward to having more to say about them in the months ahead.

We are now in transition from a time when infrastructure was our primary objective, to focus

more on how we use this infrastructure to the benefit of our citizens and businesses.

Getting the connectivity infrastructure in place is of course fundamental but it is the way in which we use that connectivity that has the ability to transform New Zealand. One of my continued frustrations is how few New Zealanders know that our third largest export sector is ICT and that the sector is growing far faster than the national average with demand for staff meaning salaries in ICT are more than twice the average.

In addition to the global opportunities, better connectivity at home has the potential to completely change how we connect with each other, how we educate our children and how we provide healthcare and other services across the population. It has the ability to mean that living outside the main city centres no longer means a lesser level of opportunities to work, train or get specialist care.

It is delivering on these opportunities that is at the heart of capitalising on the better connectivity we are providing. **FI**



How much methodology is needed for a successful project?



*These days it seems like you can't swing a cat without bumping into two or three technology projects, but not all of them will be successful. Project management methodologies are one way to improve success rates. International project management expert **Gary Nelson** tells us more...*

Whatever business you are in, you will find projects. They are the way that things get done, the way to introduce change, make new things or make things better – but what is the best approach to getting a successful project outcome?

'Winging it' has a tendency to produce variable results. Alternatively, you can use a project methodology – a defined set of methods, principles and rules for doing something in a consistent fashion. One good thing about using established methodologies is that someone else has already done a lot of the hard work. The down side is that there are a lot of methodologies out there, with names of varying levels helpfulness like Method123, Scrum, TenStep, UPMM, Prism, PRINCE2, Lean and Waterfall. Some are simple to use, while others can be extremely complicated and require huge amounts of effort. And following a project methodology does not mean that a project's success is confidently assured, although it can significantly improve the odds.

If you are considering using a new methodology, there is a lot of information available that describes the pros and cons of each. With a bit of reading you can generally choose one that looks promising, but it is wise to seek advice on what methodologies are best suited to your industry or situation. You don't

need to hire another consultant to do this, just talk to other companies in your sector that have been using the methodology for more than a year – particularly those that have similar challenges to yours. Find out what project methodologies they use, what worked, what didn't and how they adapted them to work for their business. You might also like to find out if the methodology needed extra staff to support it and what added the most value for them.

While a project methodology can help move a project forward, I have seen too many people get lost in the methodology itself and lose sight of their project's objectives. When you adopt a project methodology, take it with a grain of salt. My advice is to introduce it slowly, learn from it, and gradually adapt it so that it works for your business. (Obviously, the shorter the project the less documentation and structure you need, but you can still pace the project for learning.)

You may not need to use all of the structure or documents the methodology describes, and most methodologies actually advise users to tailor them to their specific situation. If a particular document adds no value, then it's not a sin to drop it. When all is said and done, it is not the methodology that is important, but the project results and a well-adapted methodology should be an aid to

producing your desired results.

Another, more advanced, approach is to develop your own custom methodology that is specifically tailored to your business needs, using a framework like the PMI PMBOK Guide. These custom project methodologies typically serve their purpose very well and allow users to adjust and improve them as time goes on, but are only really worth the investment for large projects or when your company has lots of projects in its sights.

All in all, a project methodology is only a guide and should be treated with a critical eye. Throw out things that are not adding value, tailor elements to suit your environment, and keep an eye on your own project's goals and you should find yourself with the perfect balance between methodology and practical application. **fi**



ABOUT GARY NELSON//

Gary Nelson, PMP, is a project manager and author of three project management books. He has co-developed several project methodologies over the past 25 years, and his international experience includes numerous projects in New Zealand, Taiwan, Hong Kong, the US and Canada.

Time to call in the pros

*The Institute of IT Professionals NZ (IITP) CEO **Paul Matthews** explains what the Chartered IT Professional accreditation is and why we need it...*

In 1907 a group of engineers and bridge builders in Quebec, Canada, embarked on an ambitious project to build the longest bridge in the world. But before the bridge was completed it was to cost almost 100 human lives.

On August 29th the partially built bridge collapsed, killing 75 workers and injuring another 11. A Royal Commission of Enquiry found a lack of experience of the type and size of bridge and clear mistakes had caused the disaster and held the designer and consulting engineers responsible. Construction began on the bridge once more in 1916, but disaster struck again, when the central span was being raised into position, and fell into the river killing 13 workers.

The managers had been made aware of the problem that caused this second collapse a full six weeks prior by the engineer responsible for the construction of the centre section, but hadn't taken any action. All in all, 88 people lost their lives to predictable failures.

So what does all of this have to do with IT and technology today?

It was after this double tragedy that the concept of the Professional Engineer was born. Engineers realised that they couldn't continue to have such devastating failures caused by inexperience or not following reasonable standards of practice. And they could no longer tolerate decision-makers ignoring their professional advice.

A similar sentiment has been growing in the international IT community since 2008, when the national tech professional bodies from Canada, the UK, Australia, South Africa, Japan and elsewhere came together to discuss whether it was time for the IT profession to also put in place minimum competency standards. Since then, all of these countries, and many others have done just that.

In New Zealand's case, the road towards the Chartered IT Professional accreditation that was officially released in February began when the IITP (then called the NZ Computer Society) released a 2008 discussion document outlining a range of problems in the industry and calling for the



profession to form independent competency standards to address them.

As well as continual significant failures in major IT projects in both the public and private sectors, some of the issues highlighted included the global IT skills shortage; significant reduction in technology undergraduates and in the percentage graduating; negative perception of IT as a career amongst youth; and lack of retention of skilled individuals in New Zealand.

In other words, our bridges were falling down and we needed to do something about it.

New Zealand's response, run by the Institute and named IT Certified Professional (ITCP), was released in late 2009 to great success.

Up until that point, IT was almost the only vocation or profession remaining without a set of independent benchmarks outlining the minimum expected standards of skills, knowledge,

ethics and professionalism for people operating the field. And we're not just talking about the established professions such as accountants and lawyers here. Almost every area you can think of, from plumbers to librarians and architects, has minimum standards in the form of an overarching professional certification. The reason for such accreditations is that there is a real difference between someone who knows what they're doing and someone who doesn't. Professionals have the right to differentiate themselves and a responsibility to come together within professional bodies and define minimum standards.

In February the IITP converted the ITCP to the Chartered IT Professional NZ, issued under license from the UK-based BCS, the Chartered Institute for IT. It also introduced a new Certified Technologist accreditation for those in the first few years of their career. The reason for the change is to increase the recognition of Kiwi IT professionals both in New Zealand and around the world, and to provide credentials that are immediately recognisable by the public.

Those accredited have committed to adhering to standards of professional conduct and ethics and have agreed to be professionally accountable if they don't. In return, they have the weight of the entire profession behind them when they say that a project can't proceed because if it does, the bridge will fall down. ■



ABOUT PAUL MATTHEWS//

Paul Matthews is chief executive of the Institute of IT Professionals New Zealand.

You can find out more about CITPNZ and CTech at www.iitp.nz/certification