

Attachment

**Auckland Regional Economic Development Forum
Submission to the Ministry of Economic Development
Regarding the Telecom Separation Proposal**

To:

Operational Separation Submission
ICT Regulatory Team
Ministry of Economic Development
PO Box 1473
Wellington
Attn: Ralph Chivers

From:

Auckland Regional Economic Development Forum
Auckland Regional Council
Private bag 92012
Auckland

1. Introduction

a. Description of this document

We welcome the opportunity to submit on the draft Telecom Separation Plan. This submission does not comment in details on the draft Plan. Instead, we would like to take this opportunity to emphasise the importance of high speed ubiquitous broadband infrastructure for New Zealand and the Auckland region, and argue that the Telecom's recently announced plan is only a small step in a domain that requires a transformational leap forward.

b. Description of this document's sponsor

This submission is made on behalf of the Auckland Regional Economic Development Forum (the Forum). The Forum, a committee of the Auckland Regional Council, is a cross-organisation group of leaders whose role is to set directions to and priorities for the economic development of the region. It oversees the implementation of the Regional Economic Development Strategy and the Metro Project Action Plan. Its membership comprises members from the regional and local councils, business, infrastructure providers, community groups and education providers in the Auckland region.

We will be seeking formal endorsement of this submission at the next Forum meeting on December 13, 2007.

c. Why the Auckland Regional Economic Development Forum is submitting

The deployment of true broadband is a regional priority for the economic transformation of the Auckland region. The Forum considers that Telecom, as all telecommunications companies, has an important role to play in contributing to the delivery of the region's telecommunications aspirations. Telecoms plans for the future are therefore of interest to the Forum as well as to all councils in the region.

2. Strategic direction for broadband in the Auckland region

a. Regional aspirations: the Metro Broadband Strategic Framework

The Auckland Regional Economic Development Forum has acknowledged the need for faster broadband as part of the Metro Project Action Plan. This Plan aims to accelerate the Auckland region's economic development through productivity-led economic growth, transforming the region into a world-class city-region. The Forum articulated its vision and goal in the Metro Broadband Strategic Framework:

"The Auckland region, as the commercial hub for the world's most geographically remote economy, will deliver sustained world class broadband connectivity to its businesses, government/local government organisations, and citizens"

The regional aspiration aligns with the directions set in the national goals set in the Digital Strategy.

Officials from the eight councils of the Auckland region are united in their vision to deliver enhanced broadband speed and access across the region. It is envisioned improving broadband service by extending and deploying fibre to the node with the ultimate goal of fibre-to-the-home (FTTH) for every residence and business in the region. An open access network architecture is considered an essential principle in providing a competitive and high performance telecommunications environment as a key enabler of the region's economic and urban transformation.

b. Target broadband speed to position Auckland as a world-class city-region

The government has a stated plan to place New Zealand in the top half of the OECD for broadband services by 2012. Our assumptions of the 2011-2012 broadband targets are shown in the table below and provide some guidance as what speed can be expected in the future. They are predicated on two key assumptions:

1. That the OECD average broadband service is currently 4mbit/sec (there is no clear data on delivered broadband service but the OECD median advertised service is 8Mbit/sec and for this exercise it is assumed that through plan constraints and service contention that 4Mbit/sec is the delivered median).
2. That demand (and supply technology) is doubling every 18 months (from a technology perspective this is consistent with Moore's Law of computational capacity).

OECD Average	Average users Mbits/sec	Advanced users Mbits/sec	Innovators ¹ Mbits/sec
Jun-07	4	8	16
Dec-08	8	16	32
Jun-09	16	32	64
Dec-11	32	64	128
Jun-13	64	128	256
Dec-14	128	256	512

Source: Developed by Ross Peat based on OECD median advertised service and Moore's Law of computational capacity

The above table suggests that that 20Mbit/sec² will not secure New Zealand's place in the top half of the OECD by 2011. Furthermore the longer term outlook to 2014³ shows a requirement for capacity well in excess of 100Mbit/sec. While VDSL2⁴ technologies may deliver service at these levels it is clear that the long term strategic infrastructure investment is fibre. Internationally the drive to fibre is well established. Japan, Hong Kong and Singapore are looking to 100Mbit/sec in the very near future and North America and Europe are also rapidly developing their fibre assets.

3. Telecom contributions to the regional aspirations

- a. Is Telecom \$1.4bn investment plan for New Zealand enough to reach the Auckland region's aspirations?

The recent ADSL2+ rollout announcements by Telecom reflect a positive change to greater accessibility and openness. We understand that an investment of \$1.4 billion over four years is planned for the installation of approximately 3,800 cabinets/nodes throughout the country. It is not clear however whether the Telecom announcement of a \$1.4 billion investment to enhance broadband services is simply a public restatement of previous investment intentions or is a genuine signal for accelerated broadband investment by Telecom in New Zealand.

The target of 20Mbit/sec access for nearly all New Zealanders expressed as part of the Telecom plan does represent an improvement of the services available today. However, questions remain about how much this planned investment is going to contribute to achieving national broadband goals as part of the government's broader economic transformation agenda. As discussed before, we do not consider this proposed speed to be adequate. Further, an ADSL based service does not support the symmetry required for businesses engaging in the knowledge economy.

¹ Advanced users are assumed to require double the average service and that innovators (particularly software developers, and creative sector and scientific/engineering users) require double the advance user capacity.

² 20MB/s is only achievable with an ADSL2+ service (as a minimum). Telecom tests in Pakuranga indicate that only 7% of users will achieve this level of service because of poor copper line quality, poor modern hardware or poor house wiring (or a combination of these)

³ It is believed that parts of the Telecom copper network, and some switches, will experience high operational failures from 2008 and catastrophic failures from 2015, if not upgraded.

⁴ High speed VDSL service may cause unacceptable interference levels on some parts of the copper network and its use may be restricted.

In addition, Telecom monitoring suggests that ADSL2+ might not prove very effective in increasing broadband speed. After enabling ADSL2 technology in Pakuranga, Telecom reported in its July 2007 ADSL2+ Roll-out Update that only 7% of broadband customers were enjoying better than ADSL1 level speeds. The remaining 93% of customers were either not synchronised to the ADSL2 standard (23%), synchronised to the ADSL2 standard, but restricted by ADSL1 modem speed (33%), or, most significantly, synchronised to the ADSL2 standard and limited to ADSL1 speed by line quality, length, or premise wiring.

This reinforces the need for a fibre solution in the region if we are to have an internationally competitive telecommunications offering in the medium term. It is, therefore, our opinion that the announced Telecom investment will not deliver on our regional broadband aspirations.

While Local Loop Unbundling provides an opportunity to develop additional competitive services in the market, these services will be exchange –based and risk becoming “stranded” as Telecom fibre to the node rolls out. Commercial returns will therefore need to be made within the two year upgrade window advised by Telecom. This is unlikely to assist the development of competition and will not drive more affordable services. What is required is significant investment in fibre.

Given that many of the economic (as well as social and sustainability) benefits fall outside the remit of commercial telecommunication operators, it is apparent that what central and local government seek as ‘transformational’ outcomes and what commercial telecommunications can reasonably be expected to deliver creates a partnership opportunity to either bridge the difference, or provide a viable alternative.

b. The importance of true broadband in the Auckland region

A number of international studies assert the multiple benefits of high speed ubiquitous broadband infrastructure and its applications in the health, social, and economic and transport arenas. The role of broadband as part of developing a world-class economy has also been the recent focus of attention of the New Zealand Institute. Without reproducing the argument developed by David Skilling, we would like to point to his conclusion, as it adds to the debate on the required investment in telecommunication. The national economic benefits derived from broadband range from NZ\$2.7 to NZ\$4.4 billion per year with further upside potential possible. There is a significant cost to waiting to deploy true broadband infrastructure in the country. The longer that New Zealand waits, the more economic value it will forego. In other words, the opportunity cost of not investing in true broadband infrastructure is up to \$4 billion a year for the New Zealand economy.

This is recognised by Minister Cunliffe who declared earlier this year that New Zealand’s GDP could be boosted by NZ\$13.1 billion by 2030 if we could move to top quartile for broadband performance in the OECD by 2015.

To reap the benefits the New Zealand Institute speaks about, what is needed is fibre, and not investment in an infrastructure which is not future proof and will bring limited improvement in current speed of telecommunications.

Certainly, the Auckland urban areas have the potential to support a strong fibre network. We consider that investment should be prioritised into all commercial and productive areas in the region. Fibre is a cornerstone of our vision to becoming an internationally competitive city-region. If Auckland is the only New Zealand’s city with the potential to become truly world-class, then New Zealand deserves nothing less than a world-class telecommunications network in the Auckland region.

4. Lessons from the UK

While the UK experience of Operational Separation is still in its infancy, some conclusions regarding investment can still be drawn. Investment by Openreach, the operationally separated access division of British Telecom (BT), has to date focussed on xDSL technologies, designed to exploit its copper last-mile network. According to most industry commentators and regulators Ofcom, Openreach has delivered levels of investment consistent with expectations. Certainly in this respect, we believe Telecom will follow-through on its proposed investment in ADSL2 technology, and following Openreach's precedent, will continue to actively invest in copper-based broadband technologies.

However, the broadband debate in the UK is now focussing on a true "Next Generation access" (NGA) network, which will involve some form of FTTx. Openreach seem reticent to engage in such investment, although they do acknowledge its inevitability. Many arguments have been put forward by Openreach against such a fibre deployment, including a lack of demand, insufficiency of current services (e.g. uncertainty on HDTV), the huge levels of investment required (£10bn for Fibre to the Cabinet, and the same again to reach homes) to name a few. Those on the other side of the argument, while acknowledging these hurdles, believe the main driver of this inertia is Openreach's incentive to maintain the lifecycle of its copper network for as long as possible. The UK Government is now trying to determine whether direct investment is required to make the transition to the necessary transition to a full-fibre network happen.

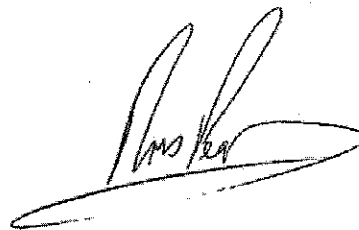
Given that we believe that Telecom will react similarly to Openreach, without some form of Government intervention to stimulate fibre deployment, it may be a very long time before Telecom retires its copper network in favour of FTTx.

5. Declaration

Signed for and on behalf of the Auckland Regional Economic Development Forum



Michael Barnett,
Chairman, Auckland Regional Economic
Development Forum



Ross Peat,
Member of the Auckland Regional
Economic Development Forum, and
champion for the broadband initiative

Dated 21st November 2007

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