



Telecom Corporation of New Zealand Ltd  
Level 9, Telecom House  
68-86 Jervois Quay, PO Box 570  
Wellington, New Zealand

**Vanessa Oakley**  
Senior Counsel – Regulatory & Competition

Tel: +64 (04) 498 9362 Fax: +64 (04) 473 5926  
Email: [vanessa.oakley@telecom.co.nz](mailto:vanessa.oakley@telecom.co.nz)  
[www.telecom.co.nz](http://www.telecom.co.nz)

5 December 2005

Chris Abbott  
Commerce Commission  
44-52 The Terrace  
**WELLINGTON**

**By email:** [chris.abbott@comcom.govt.nz](mailto:chris.abbott@comcom.govt.nz)

Dear Chris

### **TelstraClear Bitstream Application - Request for Information**

The Commission has asked for the following information<sup>1</sup>:

Telecom's network design/provisioning rules relating to maximum utilisation levels applying to virtual paths from the DSLAM to the LAC for internet-grade best-efforts services.

### **Telecom's response**

#### *Management of the network to date*

Telecom's formal rules to date for Jetstream and UBS backhaul provisioning have been focused on growing geographic coverage and equipment modularity. In particular we have had to focus on gearing up to cope with accelerated growth, finding innovative ways of expanding coverage, and finding ways to implement the UBS service. Telecom's approach has therefore tended to be reactive to backhaul issues.

Through this phase we have tended to be reactive to any capacity problems as they have arisen, and when reacting, we have tended to overshoot on backhaul provisioning beyond any sustainable economic level, to ensure customer experiences were not impaired, and knowing that broadband growth would bring the economics back into the right ball-park over time.

Our current transport provisioning rules are based on a number of factors:

#### *What "contention ratio" does Telecom use?*

Our current provisioning rules mean that the current contention ratio experienced by customers on Telecom's DSL Broadband services varies. Users connected to DSLAMs that have few other users typically enjoy very low contention ratios today. In areas where DSL take up has been higher, and/or there is scarce transport resource, the current contention ratio is much higher.

---

<sup>1</sup> Email Commission (Abbott) to Telecom (Oakley) dated 29 November 2005 at 6.07 pm

Currently our provisioning rules are based around three dynamics:

- (a) **Equipment** – Transport is initially sized on equipment type i.e. site or cabinet and may be feed via an STM 1 or 2M bearer(s). The equipment used in a small site or a cabinet may only accept multiple 2M bearers, whereas a DSLAM deployed in a larger exchange site will accept up to an STM1.
- (b) **Availability** – Notwithstanding the above equipment size issue, actual capacity deployed will depend on the available transport systems. For example when Queenstown and Gisborne exchanges were enabled, the full size DSLAMs were fed by 4 x 2M bearers as that was all that was readily available.
- (c) **Demand** – we operate to a 6 month or 3 month demand window (once again depending on Site category and equipment type). We will only augment capacity if demand meets a hurdle. The impact being that contention may occur if future demand is not obvious.

Our current provisioning rules will not be sustainable in the near term as they reflect an establishment phase for DSL. The Commission should not assume that the status quo will remain or be appropriate. Telecom already has a significant amount of work in progress to move to a Service Performance Management (SPM) approach and allocating bandwidth through backhaul. Telecom has not been able to finalise network dimensioning and provisioning rules going forwards due to the considerable uncertainty presented by the pending regulatory proceedings. While we are mindful that the Commission has said it only wants to know about the current rules, we consider that it is prudent that the Commission understands the proposed changes so that its determination is not made in a vacuum. We set out the go forward position at a high level below.

*Management of the network going forwards will evolve and change*

Telecom's transition to a next generation network is highly reliant on building an IP network in which we can differentiate service performance over a common network capability across a variety of service offerings. This will be fundamental for delivering exciting new triple play services and will demand the transfer of large amounts of data across the core, access and transport networks.

We must be able to deliver both "best effort" broadband service and guaranteed service performance for next generation services over common platforms. This is a key enabler of our next generation business model and an inability to do this would undermine the economics of our next generation network investment economics going forward.

As a result, Telecom is moving to provide a more consistent service experience for both our retail and wholesale broadband Internet users. We are currently progressing SPM changes which will put in place provisioning rules targeted at standardising the customer service experience for best efforts broadband based on dimensioning virtual paths around the number of customers attached to a DSLAM. We will also be adding capability to our network which will allow us to monitor individual customer service characteristics from the DSLAM through to the customer's modem. This will enable assessment of the impact of unconstrained download speeds on the overall network and consider appropriate responses.

If the Commission is proposing to set network design or provisioning rules Telecom notes that the Commission would need substantially more information than the above in order to be fully informed of the consequences of such an approach. In Telecom's view, the Commission should be defining the regulated UBS and leaving *how* that is to be delivered in the network to Telecom.

As previously stated, Telecom remains very supportive of the construct of the same virtual path and therefore consistent service quality being used to deliver Telecom's retail best efforts internet service and the UBS.

If the Commission requires further information please feel free to contact me.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Vanessa Oakley', is centered below the text 'Yours faithfully'. The signature is fluid and cursive.

**Vanessa Oakley**  
Senior Counsel – Regulatory & Competition