

26 May 2006

Reg Hammond  
Manager IT / telecommunications policy  
MED  
PO Box 1473  
Wellington



Dear Mr Hammond,

## **ISPANZ RECOMMENDATION RE: UNCONSTRAINED UBS REGULATION**

### TELECOMMUNICATIONS REGULATORY REFORM

ISPANZ acknowledges the significance of the breadth of the reform announced on May 3<sup>rd</sup> 2006. However, we are concerned at the amount of time that the reform will take to implement. Much of the reform timetable will not be able to be compressed significantly but New Zealand cannot wait two years to see real improvement to the broadband environment.

Telecom has made the right noises but as yet there is no evidence that the situation will improve prior to government intervention.

### UNCONSTRAINED UBS

At the very least we need to improve UBS immediately. ISPANZ believes the following issues need to be addressed with urgency:

1. UBS downlink should be unconstrained to the extent of available technology and local loop capability
2. UBS uplink should be fully unconstrained
3. Any artificial constraints on UBS that could impact real-time services should be removed, especially in the area of latency and backhaul congestion.
4. UBS must be available at a fair retail-minus price, determined by the Commission.

The current ihug/CallPlus determination will improve downlink speed (1) and price (4), but we need to fully unconstrain UBS as soon as possible.

Removing the artificial uplink constraint is straight forward, but other constraints fall into two categories:

1. Performance SLAs
2. Backhaul congestion

### UBS performance SLAs

ISPANZ considers that it will be necessary to introduce a set of service level agreements that moves the service from a "best-efforts internet-grade" service to one capable of supporting real time services such as VoIP and video conferencing. There are two key performance indicators that need to be enforced to achieve this:

1. Jitter <75ms
2. Packet loss <1%

(As measured between the customer's DSLAM and the ISP's POI).

## UBS backhaul

The biggest constraints on the UBS service currently exist in the backhaul. As background, it is worth summarising how the backhaul from the DSLAM to the ISP is configured in 3 parts.

1. From the DSLAM to the 1st Telecom ATM switch. This virtual path is shared by all wholesale and retail broadband customers. The cost of this is an integral part of the UBS service.
2. From the 1st ATM switch to the handover ATM switch. This is the commercial UBS backhaul service that is shared by all wholesale customers, but not Telecom retail (nor TELSTRACLEAR when they come online). The price of this service varies from 0 to \$2.10 per customer on Telecom's ratecard and is distance dependant. The average per customer cost for larger ISPs is ~\$1. As well Telecom has an overage charge that kicks in when an ISPs average customer monthly usage is over 4GB.
3. From the handover ATM switch to the ISP. These STM-1 (\$3880/month) or STM-4 (\$8000/month) links are separate for each ISP. The average per customer cost for larger ISPs is ~\$1.

ISPANZ members have been asking Telecom for months for information on how each of these 3 backhaul components are dimensioned. Last week Telecom responded with the following information:

1. The shared virtual path from the DSLAM is dimensioned to a minimum downlink average throughput (during 99.9% of all 15 minute periods) of 32kbps. [for the technical, the averaging means that this is not the direct equivalent of the previously publicised SIR].
2. Telecom currently will not disclose any information on the dimensioning of the backhaul service. We hope this will change soon.
3. The backhaul ATM interconnect, while purchased in STM-1 chunks, is rate limited to 24kbps per provisioned customer. Telecom has agreed to discuss giving ISPs greater choice in the dimensioning of this link.

The current problem is clearly the unknown dimensioning of the backhaul service. ISP customers regularly experience worse than dial-up speeds during busy times and are increasingly complaining about this. This poor performance is not necessarily mirrored in the experience of neighbouring Telecom retail customers, who do not share this backhaul service. ISPANZ members do have examples of this and are currently gathering further data.

ISPs need to have more say in how UBS backhaul is dimensioned. We acknowledge that this may have some cost impact, although we are concerned at leaving this to Telecom to determine. We want Telecom to be required to provide a minimum of 32kbps (as per the shared virtual path) for the current price, but without the unjustifiable overage charge. Beyond this we are prepared to pay a fair price for an SIR that is more in line with usage demanded by our customers. ISPANZ proposes a nationwide average backhaul price increase of \$1 for 64kbps SIR excluding ATM interconnect.

So what ISPANZ is proposing is that the government implement a regulated UBS backhaul service based on the current commercial UBS backhaul, but with a clarified standard SIR, with the option of an improved SIR.

As well the regulated backhaul should also mandate a timely migration to Ethernet interconnect giving ISPs the option of installing their own transmission in the relevant Telecom exchange on fair colo terms. However, given that the details of this could take longer to determine, this could reasonably be a second stage.

## RECOMMENDATION

ISPANZ recommends that the price for this regulated unconstrained UBS service should be based on the regulated UBS price that the Commission determines from the current ihug/CallPlus application, with a fair allowance for the cost of any improvements (if it is determined that the proposed KPIs really do increase the cost). However, we do not see that the removal of artificial constraints that are currently in place will have any cost impact.

1. UBS downlink unconstrained to the extent of available technology and local loop capability.
2. UBS uplink unconstrained.
3. SLA introduced covering jitter and packet loss.
4. A fair retail-minus price, determined by the Commission.

ISPANZ also recommends a regulated backhaul service based on Telecom's current commercial UBS backhaul, but with the following changes:

1. UBS backhaul with 32kbps SIR at today's prices.
2. Removal of backhaul overage charge.
3. Option of backhaul with 64kbps SIR for \$1 more than today's prices.
4. Removal of rate limit on ATM interconnect (so ISPs get what they pay for).
5. A reasonable migration plan to Ethernet interconnect.
6. Fair arrangements for Telecom colo of ISP interconnect transmission

If you have any questions about any of the information in this letter please do not hesitate to contact me via email [david.d@ihug.co.nz](mailto:david.d@ihug.co.nz) or phone 09 9629894.

Yours sincerely,



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