

ISPANZ SUBMISSION TO INTERNET NZ

Peering Consultation Document

11 March 2007

1. Peering: Interpretation and Definition

The term peering is open to many interpretations. The report identifies the differences in what is meant by the word “peering” and says that emotive responses flowing from historical events can be overcome by defining as far as possible what peering means. Do you agree with definition of peering that is proposed in the report. If not, what would be more appropriate?

Cost Neutral Interconnection is satisfactory.

2. Cost of Transit

International benchmarking suggests the cost of transit is relatively high in New Zealand. Do you agree? Specifically, is there a market failure or evidence of SMP (significant market power) with regard to the cost of transit? Should government conduct an investigation regarding the price of transit? And finally should Government regulate the price of transit?

This question appears to be linked to finding 2.1.3 in the report itself, this question appears to be about domestic bandwidth only. ISPANZ sees no evidence in the report that supports the notion that NZ domestic transit is high compared to the rest of the world. The report and specifically Appendix B look at blended National and International Transit. Pricing comparisons between International Transit only and National Transit only are not carried out. NZ National (only) Pricing is not compared with other economies in the report.

ISPANZ recognises that NZ Blended (Both National and International) IP transit is above the average price (10-30%) when compared with the rest of the world. It is well understood that our geographic position means we have some of the highest international transit prices in the world. But it is not reasonable, as the report points out, that National Transit Pricing should subsidise International Transit pricing in order to bring overall blended transit pricing in touch with, or better than the global average. Because of this we support the notion that pricing in general should reflect the differences between National and International connectivity.

However, for the purposes of comparison ISPANZ has carried out some investigations of it's own. Firstly when discussing National (or domestic transit), population density(1) must be considered. NZ has a national average of 15 people per square kilometre putting it on a par with Finland and Norway or the US states of Oregon, Maine, Colorado or Arizona . The US as a whole has a national average population density of 31.

Sources:

- OECD Factbook 2005, <http://www.stats.govt.nz/NR/rdonlyres/40C8F06E-DA54-46C5-87B8-9B0485E51BD5/0/PopulationTableofPopulationDensity.xls>
- http://en.wikipedia.org/wiki/List_of_U.S._states_by_population_density

ISPANZ has consulted with the North American Network Operators Group (NANOG) and found that the cost for domestic point to point ethernet capacity was comparable to some NZ pricing (in fact slightly higher). We compared against the US primarily because the data was easier to acquire, and that the US is highly competitive market in long haul domestic transit. This was only against one US provider (AboveNet), who was prepared to provide data. Nevertheless, it was hard data that suggests NZ National transit is certainly not out of touch.

Further investigation is required to ascertain domestic only transit costs of Finland and Norway. ISPANZ recommend benchmarking 10,100 and 1000Mbps Ethernet/POS private line services over 600 and 1200 kms and using a factor to equate to IP transit (aka DIA) where necessary.

Based on our assessment of the detail of the report, and combined with the snapshot of the US market, ISPANZ does not agree that the NZ domestic market is relatively high, but instead is dominated by transpacific costs.

As the transpacific costs of transit dominate, and those costs are managed by a monopoly, a government review into the costs and prices, with intervention being a possible outcome, is recommended.

3. The state of networking - lack of reliable data

The report highlights the difficulty in having any informed debate about the state of networking in relation to local, national and international data interconnection in New Zealand, without access to reliable Internet traffic data and statistics. Do you support the need for an initiative that would collect and make available on an aggregated basis, New Zealand Internet traffic flows and volumes? If so who should collect that data? Specifically; the Telecommunication Carrier's Forum, Commerce Commission, Ministry of Economic Development, InternetNZ, or other?

ISPANZ does not support the collection of traffic flows and volumes. We feel it is too invasive, and has too many commercial sensitivities. However ISPANZ very strongly supports the collection of latency, packet loss and availability statistics between providers major nodal points in NZ. A very good example of what we support the introduction of is statistics collection along the lines of <http://internethealthreport.com/>

Measuring flows and volumes is not the outcome we desire. Having fast, loss free and stable internet networking is the outcome we desire. It is the view of ISPANZ that increased peering will help us achieve this.

We are comfortable with InternetNZ facilitating the introduction of this and for the data be made available to the public in the same way as the US example.

4. Rich Media Content Distribution

The report identifies the challenges faced by content providers, particularly the distribution of audio and video files. What initiatives with regards to peering and data interconnection would assist the growth and viability of the NZ digital content industry?

The Telecom Local Peering proposal is a response that partially assists growth for the NZ digital content industry. In it's current form, assuming a reasonable take up of the Telecom proposal by ISPANZ members who host content, or carry content on its backbones, there appears to be some benefit towards serving Xtra customers, assuming Telecom NZ honour their intentions with meeting ISPANZ members at 10 ISPANZ peering locations outside the Telecom NZ network.

However there is no reciprocal benefit.

Customers of ISPANZ members who provide Internet access services will not be able to access Digital Content via the proposed peering exchanges to Telecom NZ hosted Digital content. Moreover, access to basic services such as to Xtra mailservers will not benefit from peering or even national transit because Telecom NZ has elected to locate these mailservers in Australia.

Progress is significantly slower than what ISPANZ members would prefer.

Other initiatives, such as the Citylink Anycast Content Distribution Network (used by Radio NZ and TVNZ and others) provide an interim solution that is cost effective for the NZ Digital Content industry in the short to medium term, but is ultimately a tactic to encourage the long term solution, which is localised peering.

5. Consumer Pricing Strategies

The report suggests consumer pricing strategies that differentiate between national and international traffic might encourage a greater take-up of New Zealand-sourced content. Do you agree?

Yes, but consistent differentiation to the consumer is not without its challenges, primarily to do with aligning perception with reality. What is national? National BGP routing table? - there are many International IP addresses in the national routing table. Domain name? - many .nz domains reside overseas. So there would need to be a standard way (or accepted best practice) of differentiation methodology by providers to ensure minimum consumer confusion and consistent practices. Having said that, Consumers should have the choice between blended and differentiated pricing.

As mentioned in the report, there are already differentiated business services – which could benefit from a best practice agreement.

A simple blended content approach is consumer friendly. But strategically we recognise it may not produce the best outcome.

6. Telecom Local Peering Proposal

The report has noted a significant industry development with regards to Telecom's Local Peering Proposal, which has been the subject of industry discussions since April 2007. Do you support the proposals put forward in Telecom's local peering initiative?

ISPANZ is cautiously optimistic of the proposal, but as mentioned in our response to question 4, it is not without its flaws.

Specifically:

- Only Xtra DSL customers are proposed to be peered on a localised basis.
- The rest of the Telecom Internet service is not peered and a timeframe for doing so is unclear.
- The POI count is high, with the yield (number of potential individual IP addresses peered) too low (120,000 addresses per IXP) to justify peering.
- Uncertainty about the peering of centralised services such as web proxy services, which will completely skew the effectiveness of peering.
- Uncertainty about Telecom's commitment to meeting the industry at natural industry aggregation points (at their cost).
- We are unclear about Telecom's authority to act on behalf of a retail unit with respect to IP interconnect in the current environment.

- It appears that rights of access and colocation at peering points are a mixture of regulation and commercial terms and conditions. A peering/interconnect agreement should be standalone, with a minimum number of external dependencies that out of the control of the participants.

Whilst we understand the architectural/technology driven rationale behind the 29 points, it is difficult to understand the rationality of splitting the Auckland region into 9 different zones, regardless of technology decisions. The region is just too important to segment to that degree.

Telecom have provided an initial indication that they are prepared to meet ISPANZ at 10 ISPANZ nominated IXP locations. We applaud them wholeheartedly for this, but the uncertainty around this commitment is slowing down progress. We are wary of the temptation to nominate the 9 Auckland zones as meetme points, recognising the issues brought out in the report about the Auckland centric nature of IP interconnect in this country. ISPANZ is supportive of more diversity (and therefore increased resiliency of the national Internet fabric) of interconnect locations.

It is our view that Telecom should consolidate Auckland into 1 or 2 zones, and commit to 9 or 10 points where Telecom interconnect at natural industry aggregation points. Combining and committing to these changes to the proposal would result in an arrangement that at the high level is reciprocal (not withstanding the partial peering (Xtra DSL only) issue.

ISPANZ feel that there is not enough reciprocity in the current peering proposal, but is keen to work towards a mutually beneficial resolution.

7. Peering Code of Practice

The report is neutral at this time on whether a Peering Code of Practice could be a useful mechanism to progress industry cooperation on peering and data connection issues.

Do you support the need for a specific self regulatory industry initiative such as a Code of Practice to manage and develop consensus on peering and data connection issues? Failing that, should Government consider some form of regulation?

ISPANZ support the following steps in the process:

1. Continuation of the current process between Telecom NZ and ISPANZ and other industry bodies.
2. Should that fail, a mediation between the parties by a mutually acceptable third party.
3. Should that fail, introduction of a regulation that compels networks to interconnect on a settlement free basis where:
 - a) There is overlap in urban network footprints of 3 or more bandwidth service providers.
 - b) There is overlap in rural network footprints of 2 or more bandwidth service providers.

The geographic scope of the local networks that are peered will need to be determined, but the minimum amount would be at least the overlapped area. This would include both wireline and wireless networks.

8. Other

Please comment on any other issues in the report that you feel are not covered by the above questions.

n/a

Contact:

Jamie Baddeley
ISPANZ President
021 448 309
president@ispanz.org.nz

About ISPANZ:

ISPANZ is a non profit, industry group that represents most Internet Service Providers operating in New Zealand. Our membership includes all the major ISPs outside those of Telecom and TelstraClear; plus a broad range of medium and small ISPs. We exist to promote a fair and fully competitive Internet marketplace where our members can deliver the full benefits of the Internet to the New Zealand public and our economy. Our primary goals are to:

- Improve New Zealand's poor International ranking for broadband uptake,
- Enable New Zealand businesses to become more competitive internationally through use of Internet enabled technology,
- Improve Internet pricing and services for ordinary New Zealanders,
- Enable New Zealand to reap significant economic benefits as it becomes a broadband enabled society.

For more information please visit ispanz.org.nz