ACCC Submission – POIs and Satellite
Australian Private Networks (APN)

In response to ACCC Consultation Paper:

"REVIEW OF POLICIES AND PROCEDURES RELATING TO THE IDENTIFICATION OF LISTED NBN POINTS OF INTERCONNECT"

February 2013

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Summary

Australian Private Networks (APN) welcomes the opportunity to comment on the ACCC's Review of Policies and Procedures Relating to the Identification of Listed NBN Points of Interconnect (POIs). While unfortunately APN did not make a submission to the original review [Ref 1] in 2010, APN did put in a submission in 2012 [Ref 3] pointing out the implications of the potential multiple POIs for the NBN Long Term Satellite Service (LTSS) retail delivery. While the current ACCC POI framework and NBN Co of a 'technology agnostic' approach to broadband has merit overall to assure a competitive backhaul market, it pays insufficient attention to satellites that are 'location agnostic', and imposes barriers to entry and impacts technical performance. This APN submission does not take issue with the number of 121 POIs proposed for terrestrial broadband but does with the assumed requirement that *any* customer including broadband satellite customers be interconnected by their service provider at their 'nearest' POI. The APN proposal is to make an exception for NBN satellite customers who will be in a small minority to be able to be connected by their service provider to a single POI.

Introduction

Since 2003, Australian Private Networks Pty Ltd (APN) trading as Activ8me www.activ8me.net.au has been providing satellite-based broadband services to customers across Australia. It has grown to become the pre-eminent satellite ISP in rural and remote Australia.

By 2008, the satellite *ipstar* [1] had become the dominant broadband satellite infrastructure under the Government's then ABG program supporting 68,000 customers nationwide, offered by multiple satellite-based ISPs by the end of 2010. The NBN implementation study[2] recommended the ABG program transition to NBN Co prior to the availability of the long term solution LTSS. Since 2011 the Interim Satellite Service (ISS) from NBN Co wholesales satellite capacity[3] to multiple satellite ISPs increasing the level of broadband satellite services possible under the previous ABG program.

[1] http://en.wikipedia.org/wiki/Thaicom_4

[2] www.dbcde.gov.au/broadband/national_broadband_network/national_broadband_network_implementation_study

[3] The first phase used Optus but now the ISS is largely based on the IPStar satellite

The transition to the improved NBN Co's Interim Satellite Service (ISS) began in mid 2011 and will move to the Long Term Satellite Service (LTSS) in 2015 with the launch of the Ka band satellites. APN is thus nominally well placed to help implement the NBN Co's objectives, particularly in terms of the "last 3%" i.e. the satellite services.

Since May 2009, in addition to broadband satellite, APN has also steadily increased the range of products that it sells to its markets; new products includes satellite-connected mobile phones, wireless 3G Internet dongles, VOIP services, ADSL, home phone lines. Since 2011, APN has been an accredited NBN Co Supplier and now retails the full range of fibre, wireless and satellite services. In addition to broadband, APN has developed and installed an innovative public phone solution for indigenous communities in remote areas of Australia under the Government's Indigenous Community Phones (ICP) programme. Currently there are 268 ICP remote public phones installed and the programme has been widely recognised for its achievements.

The ACCC Review of 2010

A key component of the Government's NBN plan was to review the basis for the Points of Interconnect (POI) to the NBN Co wholesale network. In response to the Government's call to review the basis for Points of Interconnect (POI) for the NBN in 2010, APN did not make a submission to the ACCC as possible satellite implications were not sufficiently appreciated. The ACCC released its recommendations to Government regarding the number of POIs that should be implemented as part of the rollout of the NBN so as to balance a number of considerations. NBN Co's initial POI proposal (i.e. 14 POIs) needed to be balanced with that of the industry concerned that their backhaul assets would be made redundant (i.e. 'stranded assets'). The ACCC recommended a 'semi-distributed' approach of some 121 POIs which has formed the basis for the initial determination of the specific POI locations and rules of interconnection.

The particular 121 POIs (40 are deemed regional) have been subsequently identified and are the main subject of this ACCC review. This submission concerns the implications of the need to interconnect with 40 regional POIs plus possible additional outer metro POIs with the NBN LTSS satellite from 2015 where there are 10 satellite gateways as outlined in our earlier submission. [Ref 3]

APN and the Original 2010 Review

APN in 2010 was a small niche technology broadband satellite provider with limited resources to appreciate the potential long term impacts of the NBN LTSS satellite solution in particular on service evolution.

As a consequence, APN did not make a submission to the original 2010 review as we did not realise the potential consequences for the NBN LTSS satellite of the ACCC enquiry regarding the number of POIs.

It is our understanding that the ACCC undertook its review in a very compressed timetable and did not consider the implications of the POI recommendations for potential satellite delivery.

Backhaul and Satellite

By 2011 APN started to appreciate the implications of the Government's adoption of the ACCC's recommendations and raised the issue informally with stakeholders. APN raised the issue within the newly formed Satellite Services Group of the Communications Alliance and had preliminary discussion with the ACCC but given the competing interests within the Communications Alliance on this issue no single industry view was possible. Finally APN made a submission to the ACCC in 2012 [Ref 3] to point out the potential for unintended market structure consequences associated with the POI plan if applied to the NBN LTSS satellite in a 'technology agnostic' way as being planned by NBN Co subsequent to Government acceptance of the ACCC recommendations.

The likely unintended consequences are:
- The backhaul costs to the access seeker will be excessive (i.e. backhaul costs could be significant in comparison to access costs) and this is particularly the case for a niche broad satellite service provider with low traffic volumes per region.
- The accumulated latency as a result of the need to transport traffic over multiple interconnected links could excessively degrade latency- dependent services. Latency figures for Perth have been quoted as about 60msec. Satellite latency is unavoidably higher than other services, and any further increase has a noticeable negative impact on services such as VOIP, Skype and gaming

The current interim satellite service (ISS) requires only one POI in Sydney collocated with the *ipstar* gateway and the data centres of the ISPs.

Market Evolution to a Single POI

The historical experience in Australia with broadband satellite using *ipstar* under the ABG program has some lessons[4] for the issue of multiple POIs and the LTSS. *Ipstar* has multiple gateways and initially provided multiple POIs to meet the different regional retailer markets. However, over time all the retailers opted for a single POI to achieve best business practice.

From inception of the *ipstar* Satellite broadband in late 2005, IPSTAR Australia Pty Ltd had two satellite Gateways and three Points of Presence (POPs) for IPSTAR Broadband Services (Sydney, Adelaide and Perth). The *ipstar* POP's serve as a demarcation point between the Service Provider (SP) & *ipstar*. The POPs also serve as a primary point of interconnection between SP and IPSTAR. It was designed to provide a flexible solution to reduce backhaul costs for SP's who have presence in these locations. The SP had a choice of connecting at one or more and routing solutions were available between the POPs. For services providers who wanted Internet supplied by *ipstar*, IPSTAR could supply Internet MBPS for any of the POPs.

Main Points:

- IPSTAR Australia Pty Ltd offered 3 points of presence (POP)
  Mascot, Adelaide, Perth
- IPSTAR Provided rack space, power and cabling
- IPSTAR provided the backhaul from these POPs to our Kalgoorlie and Broken Hill earth stations gateways.

Demand made running these POPs an added cost for i*pstar* with little utilisation in Perth and Adelaide

- IPSTAR rented equipment including rack space, power, cabling which was never used in any significant way
- IPSTAR had to maintain these sites

By 2009 all SP's were only using Mascot, shutting down Perth and Adelaide was not difficult, nevertheless this was discussed with SPs and it was agreed that a single POP for a satellite was:

- Easy to support, size and configure.
- Competition for circuits in Mascot for Internet supply was excellent

[4] This information on the evolution to a single POI has been provided by IPSTAR Pty Ltd

- IPSTAR provided scale of economy on backhaul from Earth Stations to Sydney POP
- Simple for small Telecommunication retailers to manage

The result was that IPSTAR reduced this to just Sydney around 2010 due to lack of demand from retailers.

Satellite which is 'distance agnostic' does not require ANY local presence, let alone 121 of them. IPSTAR offered multiple POPs, but demand drove it to one. Even WA service providers were happy with a Sydney POP.

A Single POP is all that is required and it works for Satellite. The extra complexity was not required so that IPSTAR brought both earth station gateways to a single location, enabling simple and cheap connectivity. Several lessons can be learned from the market evolution to a single POI for the *ipstar* satellite system initially offered 3 POIs in Perth, Adelaide and Sydney called POPs. In this scenario:
- i*pstar* provided the backhaul from these Pops to our 2 satellite earth stations Kalgoorlie and Broken Hill.
- *ipstar* would supply Internet access or the Service Provider could from which ever POP they chose.

Thus while the original *ipstar* system had three distinct POIs to cater for the different satellite retailers regional interests, the market lead to all the satellite retailers using Sydney as a single POI as outlined above. Similarly, APN argues that the NBN Co LTSS satellite solution should allow a single POI.

Recommendation

The recommendation made in this submission is that the ACCC require retail satellite providers only need to only connect to NBN Co at a single POI. Such a clear direction would reflect the distinctive 'distance independent nature' of satellite as distinct from optical and wireless.

Satellite backhaul traffic is minor component of the backhaul market and does not impact the viability of backhaul market but without imposing unreasonable costs on satellite provision.

While 2015 may seem along way off, current satellite service providers need to be able to develop their business plans to assure business viability to serve the remote markets.

References

[1] ACCC (2010) ACCC invites comments on approach to points of interconnect to the National Broadband Network

[2] ACCC (2012) ACCC Consultation Paper NATIONAL BROADBAND NETWORK POINTS OF INTERCONNECTION, 3rd August 2012

[3] NBN Co (2012) Points of Interconnect Rollout Plan, July 2012

[4] APN (2012) ACCC Submission – POIs and Satellite – Australian Private Networks (APN), September 2012