

CHRISTMAS ISLAND INTERNET ADMINISTRATION LIMITED

A Community owned not-for-profit company

SUBMISSION 8

Submission : Inquiry into the changing economic environment in the Indian Ocean Territories

Friday, 27 March 2009

Executive Summary

History

Christmas Island Internet Administration Limited ("CiiA") is a community based, member-owned company established in March of 2000 to provide Internet services on Christmas Island. On formation CiiA purchased the assets of IOComm, a Christmas Island communications company that had determined operating an IPS was not commercially sustainable. In November of 2001 CiiA assumed responsibility for a the Cocos (Keeling) Islands ISP's internet infrastructure and a small GSM network. In 2005 eNIC Cocos (Keeling) Islands Pty Ltd gifted the Cocos assets to CiiA.

CiiA has effectively been operating the only ISP serving both Territories since 2001. CiiA's core personnel were involved in both IOComm and eNIC and have over a decade of experience operating an ISP in the territories.

CiiA Services

CiiA is a category "A" (unsubsidised) broadband provider. CiiA offers both a wireless "metro-comparable" broadband service and dial-up internet in the Territories.

CiiA's wireless broadband network uses current technology to deliver it's metro-comparable service. The term "metro-comparable" has a specific technical and commercial metrics as determined by the Department of Broadband Communications and the Digital Economy ("DBCDE"). The DBCDE seeks through the Broadband Connect program to ensure all Australians have access to a *basic* level of service. If there were additional resources available to CiiA, specifically assistance with recurring internet back-haul costs, we could offer additional enhanced levels of service.

The term metro-comparable is something of a misnomer, a DBCDE "metro-comparable" service is less than what most Australians can access in metro areas of the mainland. This has been a source of confusion and frustration for many subscribers - especially new arrivals, as they expect the same quality of service on Christmas Island has they had on the mainland.

CiiA operates a GSM mobile phone network on the Cocos (Keeling) Islands. The Cocos GSM network is ten years old and an artifact of a dot-com era project. The GSM system is on it's last legs, the manufacture no longer exists and the hardware is well passed it's use-by date.

CiiA has no plan to replace the GSM network once we run out of spare parts (any day). Replacement has been researched in detail and the cost of replacement with a new mobile network would be in the order of 1.25 to 1.5 million AUD. There is no unsubsidised commercial model that would allow CiiA to recoup this investment from a community of 160 households. When the GSM network is de-commissioned CiiA will continue to operate the ISP - which shares common infrastructure with the GSM network (eg. Towers) and support personnel. We would welcome the opportunity to submit a formal proposal should the Commonwealth choose to underwrite a new mobile system.

Challenges Faced by CiiA

CiiA faces what are arguably the worst economies of scale of any ISP in the country and has to deal with a variety of unique technical, logistical and commercial challenges. By way of example:

- CiiA pays over \$24,000 per month for our satellite bandwidth - to service 250 residential subscribers and 30 small business subscribers. The DBCDE guidelines effectively prevent us from charging residential subscribers more than \$79 a month (most are only charged \$69) small business subscribers are charged at \$225 per month. The revenue from our residential and small business subscribers only just covers our monthly satellite bandwidth cost. It does not contribute to salaries, investment in infrastructure, office expenses, accounting fees, spares, flights, rents, power etc. We make up the surplus by charging a small number of businesses and enterprises between \$350 to \$750, and from office network support contracts. The \$24,000 a month is just our recurring cost for bandwidth - a figure many multiples of what a regional ISP on the mainland would have to pay.
- The topography and dispersed population necessitates operating and maintaining a very complex network. In order to provide coverage to Drumsite, Poon Saan, Silver City, Kampong and Settlement areas, CiiA must operate a point-to-point backbone and seven point to multi-point base stations - in addition to operating the CiiA satellite earth station. For 290 or so subscribers CiiA has a very complex and expensive network to operate and maintain.
- The logistical challenges that apply to the Territories also add an additional challenge: infrequent and expensive flights, the inability to get spares couriered over-night and the complex nature of the network mean that when there are outages or other quality of service issues with the network resolution can take a week (or several).

CiiA's Current Program of Work

CiiA is continuously working to improve the coverage and reliability of the network. Work is commencing the week of March 30th on a major upgrade of the point to point wireless "backbone" between the wireless base stations. We are also looking to add a 21 metre tower to provide better coverage. It is hoped DIAC and the AG Department will be able to contribute to this specific project, if not it may have to be delayed until funds are available.

CiiA is working closely with our satellite provider, Intelsat, at installing a new satellite delivery system based out of Mainland Australia. This would replace our current DVB-based system based out of Europe with a dedicated point to point system and would provide a substantial improvement. Having our own satellite base station equipment located in Perth as well as on Christmas and Cocos Islands will:

- Enable CiiA to offer better performance to our customer's through better bandwidth
- control
- Enable larger entities to run their own Private WAN link (eg. Local School direct into the Education Department)
- Reduce latency to mainland Australia destinations by up to 40%

Options for the Community

There are two components to improving broadband in the territories, improving the speed and amount of bandwidth available to the territories and improving the distribution. At this time the only way to bring bandwidth to the territories is by satellite. Latency over satellite makes this relatively slow and expensive. Unless the Commonwealth wants to spend many tens of millions running fibre to the Territories satellite is the only option. Even if fibre were landed in the Territories the local exchanges and copper networks would need to be upgraded to enable DSL - costing many millions more.

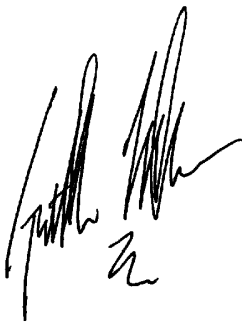
CiiA takes the view that for the foreseeable future a satellite link to the mainland and wireless distribution in the Territories is the only sensible way to deliver broadband. Larger enterprises may have access to subsidies or other resources, or be able to commercially justify installing their own satellite earth station. Individuals and small business would not be able to justify these expenses and we are focused in delivery of a basic broadband service to these subscribers.

Summary

CiiA is focused on ensuring a basic, reliable wireless broadband service is available in the communities we serve - and where it can be justified (and a commercial argument can be made) provide commercial or institutional enterprises with higher levels of service or dedicated links.

CiiA will continue to upgrade our wireless network as funds become available, while CiiA seeks to minimize network outages, the reality of operating the territories is that when they do occur they tend to last longer than they would on the mainland.

Respectfully,



Garth Miller |

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