SECURING SUSTAINABLE LIVELIHOODS through appropriate technology

Senator the Hon. Stephen Conroy,
Minister for Broadband, Communications and the Digital Economy

Dear Minister,

The Centre for Appropriate Technology (CAT) is making this submission in response to your invitation for comment on the development of the Government's proposals for a National Broadband Network.

CAT is a non-profit Indigenous organisation with specialist expertise in technology for remote Indigenous communities. CAT was established in Alice Springs in 1980, and in addition to its Central Australian head office and operations it has northern regional offices in Derby, Kununurra, Darwin and Cairns. CAT's vision is of happy and safe communities of Indigenous people and its purpose is to secure sustainable livelihoods through appropriate technology. It provides information and practical assistance with housing, water supply, energy, waste, telecommunications, transport and other infrastructure issues. CAT supports communities through community development, planning, training processes and project management.

While CAT strongly supports the provision of improved telecommunications services to Indigenous communities, it does not have commercial interest as a service provider or product supplier.

Most remote Indigenous communities are beyond the reach of the National Broadband Network

The proposed National Broadband Network is primarily targeted at the significant majority of the Australian population that can be economically reached by terrestrial networks, and CAT's constituents fall largely outside this group and service footprint. Similarly, the provision of high speed (eg, greater than 2Mbps) broadband access for remote Indigenous communities is not economically viable using satellite-based solutions, because of limited transponder capacities.

Broadband access for Indigenous communities can and should be improved within existing network constraints

CAT is of the view that broadband access is the one enabling technology that can provide access to markets and services and overcome the disabling costs of transport and fuel costs that confront people in remote Australia. To deliver these outcomes for remote Indigenous communities, our view is that establishing a functional level of accessibility to existing moderate speed broadband access services is a more pressing and soluble issue than access to high speed broadband.

Centre for Appropriate Technology Inc

www.icat.org.au

ABN 93 080 271 156

Central Australia * **North Queensland** * **Northern Australia** * **Kimberley**

HEAD OFFICE
32 Priest Street
PO Box 8044
ALICE SPRINGS NT 0870
Tel: [08] 8951 4311
Fax: [08] 8951 4333
info@icat.org.au

7/330 Sheridan Street
PO Box 6182
CAIRNS QLD 4870
Tel: [07] 4031 0505
Fax: [07] 4031 0431
cairns@icat.org.au

GPO Box 2875
DARWIN NT 0801
Tel: [08] 8981 7599
Fax: [08] 8981 7233
darwin@icat.org.au

3/68 Clarendon Street
PO Box 1304
DERBY WA 6728
Tel: [08] 9191 2585
Fax: [08] 9191 2598
derby@icat.org.au

1 Bauhinia Street
PO Box 604
KUNUNURRA WA 6743
Tel/Fax: [08] 9169 3970
kununurra@icat.org.au

Few Indigenous communities currently have functioning public access Internet facilities, and even fewer communities have a significant number of Indigenous residents who can afford to subscribe privately to Internet services. In recognition of this, your Department is funding the expansion of community facilities to promote educational and livelihood development, specifically through the Backing Indigenous Ability and Australian Broadband Guarantee programs.

However, a shortcoming of these programs for locations where satellite access is the only option (i.e. most remote Indigenous communities) is that their combined subsidy effect supports only relatively low speed access (512/128Kbps) and a limited monthly usage quota of 1 GByte. This means that they are dimensioned to suit individual users and are not effectively meeting the needs of shared public community facilities and the emerging enterprises in these communities.

For example, of the 31 larger discrete remote communities in the Central Australian region, only two (Hermannsburg and Yuendumu) have access to terrestrial ADSL services. Five more have access to WCDMA data services, but download volumes above 1GB per month on WCDMA services are priced significantly higher than the ADSL equivalent. The remaining communities must rely on satellite access to Internet services. For all the non-ADSL communities, the 1 GByte subsidy limit is a real constraint for public facilities, which are typically shared by many users. The following table illustrates the typical costs for the three categories of customer.

	ADSL	WCDMA	Satellite
Typical cost @ 1GB per month including ABG subsidy where applicable	$30	$80	$70
Typical cost @ 5GB* per month including ABG subsidy where applicable	$40	$410	$150

* selected to represent the download volume required to provide a moderately sized community service.

Access to other terrestrial networks & infrastructure

OPEL

The OPEL program to roll out higher speed terrestrial broadband services using WiMax technologies will not in its current form help to address the needs of remote communities. Apart from the area in the immediate vicinity of Darwin, the OPEL network is planned to bypass the rest of the NT and thus remote Indigenous communities altogether.

Communities in proximity to existing optical fibre trunks

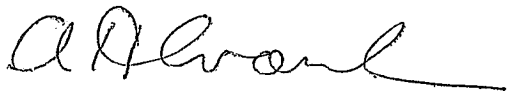
In the Northern Territory, a number of larger Indigenous (and other) communities are within close proximity of existing (Telstra owned) optical fibre trunks but are not currently able to access terrestrial broadband services. Communities near the Stuart Highway such as Ali Curung (population 379), Elliott (population 493) and Pmara Jutunta (population 279) are examples in this category.

Recommendations

1. For communities and citizens who will be beyond the reach of the National Broadband Network, consideration should be given to modifying the existing funding models to ensure that remote satellite-served community facilities receive a usage subsidy that is commensurate with their shared communal status (and consequent large numbers of users and high Internet data volumes) and recognises the enabling capability of broadband.

2. Consideration should be given to extending the reach of alternative terrestrial infrastructure to complement the National Broadband Network and other broadband access services in remote areas.

Yours sincerely



Andrew Crouch

Research Officer, Telecommunications
Centre for Appropriate Technology
Alice Springs