

RAPAD

Incorporating Central Western
Regional Organisation of Councils



18 January 2006

Project Leader

Broadband Connect / Clever Networks

DCITA

BC-CN@dcita.gov.au

Subject: Broadband Connect / Clever Networks Discussion Paper

Dear Sir / Madam

Please find enclosed our submission to your department's recent discussion papers:
Broadband Connect and Clever Networks.

The Central Western Qld Remote Area Planning and Development Board represents eleven local governments in Queensland's Central Western area. In geographic terms these communities cover an area approximately one third of the state of Queensland, with all being rural and remote.

RAPAD's notes the intent of Broadband Connect and Clever Networks and offers its support for the aims and policy objectives of both. That said, government must not adopt a 'one-size fits all' approach in the implementation, as the very policies and aims which have great potential will under-deliver if a 'one size' approach is adopted.

RAPAD

Government must stimulate ICT uptake and infrastructure provision in rural, regional and remote areas, if ours and similar regions throughout Australia are to continue to contribute to the growth of states and the nation.

If you have any further concerns or questions I can be contacted on 07 46583944 or gm@rapad.com.au.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'David Arnold', written in a cursive style.

David Arnold
General Manager

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**Central Western Qld Remote Area Planning and
Development Board
submission to DCITA discussion papers:**

Broadband Connect / Clever Networks

Why does RAPAD have an interest? We represent the communities of Central Western Qld which covers an area approximately one third of the state of Qld. The entire area is rural and remote.

RAPAD Strategic Plan – Focus Area: Technology & Communication

Goal:

1. *That Outback Queensland has technology, communications infrastructure and access to associated training that supports competitive business in the global market and guarantees social equity.*

Guiding Principles for both programs

1. Maximisation of tax payer funds to commercial enterprises

All funding provided under Broadband Connect and Clever Networks must include the provision that spare infrastructure capacity installed and operated under the grant is available to other carriers, carriage service providers and ISPs through industry equivalent wholesale arrangements. Furthermore access to this capacity must be under non-exclusive supply agreements. To facilitate assessment of an applicant's capacity to construct excess capacity (and hence available for competitive supply) applicants for funding must provide detailed information on their immediate bandwidth needs, future bandwidth requirements, the physical points at which competitors can interconnect and the capacity available at each interconnection point and identify the bandwidth and type of excess capacity. By way of explanation this principle applies to backhaul, and "last mile" access.

2. The principle of maximising community benefit must apply to all grants.

In regional areas, local government is a significant contributor in economic and social terms; more so than urban areas. This principle suggests that local government and leading industry sectors (e.g. education, Agforce, etc) have an opportunity to comment on the "value proposition" for the region/community prior to submission or grant approval. Funding submissions must contain a "*statement of support*" from regionally significant local government and industry groups. Suppliers would be encouraged to be innovative in the type, application, availability and conditions that might apply to the community benefit.

3. State & Regional outcomes

All applications must stipulate how the grant of public monies to their project adheres to the policy objectives of the State and those of significant regional groups (eg Regional Organisation of Councils -ROC's). Each state will have, at a minimum an ICT policy statement which identifies strategic objectives. Many ROC's and regional development organisations have articulated their regions ICT principles and goals as we have done above. Applicants should address these areas describing how their project impacts on state and regional initiatives by identifying supporting priorities.

Applicants should also identify the consultation process they have undertaken to identify the needs of the region. This links to No.2, i.e. Statement of Support.

Funding should support the development of business and community growth that matches clearly documented development strategies and planning of the local, state and commonwealth governments. The principle to be adopted is that the region gains an economic advantage through job creation/retention and economic development by creating a better broadband infrastructure.

4. Strategic Infrastructure Plan

Projects should align with the regions and state plans, to develop a roadmap that brings telecommunications infrastructure to regionally assessed and nominated focus points. The principle is that telecommunications infrastructure (broadband) should be tactically aligned in the same way that a regions roads system (freeways, highways, graded roads and tracks) is constructed and implemented over the longer term to provide a regionally prioritised transport network.

With appropriate support local government is well placed to undertake this planning role as it does it already through regional roads networks. Given the role of local government in rural areas, ICT networks could also be developed in consultation with local government. In this way, regions, the State and Federal Government are directing funds into building a long term telecommunications asset base as opposed to short term achievements.

Funding for broadband infrastructure projects need apply to projects designed to meet future bandwidth requirements (5 -10 year horizon) and not to projects designed on short term projections, unless such short term projections are intricate to a defined long term outcome. Without this longer term focus, communities most likely to receive funded programs to stimulate infrastructure development are unlikely to have recourse to new programs and hence be confined to a "digital void".

5. Aggregation.

- (i) Implement a requirement for Clever Networks that encourages carrier aggregation and joint access to infrastructure under commercial arrangements. The principle is that construction of competitive backhaul infrastructure (either new broadband routes or duplicate competitive trunk routes) in regional areas is most likely to have a positive rate of return if multiple carriers commit to utilising the infrastructure as a shared resource. In Queensland there are a number of opportunities for carriers and carriage service providers to create dual broadband infrastructure. This may not occur if existing carriers approach vertical integration strategies to the market.
- (ii) Implement strategies that align broadband demand from all three levels of government to maximise demand for specific towns and regions. The present practice of separate and independent supply arrangements has a detrimental impact on establishing an aggregation demand base in areas of low broadband service provision. The practice may facilitate and encourage, inadvertently, single supplier and operated broadband infrastructure; effectively a monopoly environment. A focus of identification and facilitation between governments could lead to a more strategic approach. In regions such as Central Western Qld, State and Federal government should be encouraged to work with local

- communities and local government on supply arrangements, as against an isolationist approach
- (iii) In towns and regions without significant government presence the aggregation of broadband for mobile infrastructure may assist commercial infrastructure development. Applications for funding under the Clever Networks, and Broadband Connect should also consider Mobile Blackspots issues.

6. Effectively targeting support to areas of need (BC: Pg 11, ref: Q11)

RAPAD suggests that while providers may provide information about their current services this is not in a form that is readily 'processed by the consumer, which in turn decreases the uptake of services. Capacity building is one key component missing in these discussion papers and the provision of information in itself provides only part of the journey.

RAPAD supports the view stated in the Clever Networks discussion paper regarding the revised role of brokers (CN, 4.4, pg 19) to include a focus on development and facilitation of effective use strategies. Both anecdotally (locally) and empirical (macro) evidence suggests there is vast differences in understanding between individuals and businesses of broadband – present and potentially new technologies. Capacity building is best undertaken by locally based non aligned personnel, with strong links to state agencies. A learning from the current demand aggregation activity is that some regions have little understanding of national and state directions.

Brokers can play a vital broadband awareness role. The aim of the awareness function is to work in and with communities as a focal reference point assisting local businesses, community groups and local government with the broadband transition.

RAPAD sees the non-aligned state broker as integral to the continued uptake of broadband. A whole-of-government focus is an adjoining key principle, with a state broker working to drive synergies from competing and complimentary demand drivers. By having a single focus to develop and reference all regional activity (at the state and community level) will facilitate better coordination through the health, education and local government (ROC) levels. This does not infer that community brokers should not continue. They should continue at a regional level to compliment the state broker role. Local, state and federal government should work together to ensure every region in the State has a regional broker working; in the region, in collaboration with the state broker. ROC's would be the most effective community representative group in much of regional, remote and rural Qld for auspicing purposes.

RAPAD supports the concept of program participants being accountable for providing additional information throughout the registration process. RAPAD sees this consistent with a principle of infrastructure provision based on a long term strategic intention

7. Focus on terrestrial (BC: pg 10).

While the focus of subsidies for the deployment of broadband infrastructure should be in building terrestrial infrastructure, it should not be at the total expense of satellite services as there is still a case where satellite is potentially the only answer.

Technology developments and the availability of new broadband services are expected to require greater bandwidths which are more efficiently delivered in terms of scale and economics by terrestrial systems. While the cost may be inefficient in the short term the long term benefits having access to greater bandwidths (from terrestrial) in the future must not be overlooked.

8. State Contributions.

State government should be encouraged to direct a percentage of GOC dividend into targeted rural and remote areas for broadband infrastructure development where it is unlikely (or there is documented evidence) that there is no commercial case supporting terrestrial services.

The development of programs that require governmental purchasing programs to consider the community benefit (defined as the geographic reach of broadband, diversity of service, competitive choice, equivalent metropolitan pricing and scalability) and requiring broker assessment before committing expenditure would be ideal from rural and remote regions. As suggested in No.6 in regions such as Central Western Qld, State and Federal government should be encouraged to work with local communities and local government on supply arrangements, as against an isolationist approach.

9. Key Services

Support for funding projects that build upon applications that adopt or augment existing broadband applications in key service areas such as health and education. Key services such as these are integral to the vitality of rural and remote regions and projects that build on these are vital.

10. Market Failure - Rural & Remote including Indigenous

Where there is market failure an intervention policy of zone equity should be implemented. Where the non-commercial viability of broadband to a town or region is established, this should trigger a review of government intervention in the market. Current demand aggregation projects would be one method of assessing this. The impact may create (introduce) increased broadband capacity but damage the community's capacity to develop or support an ICT industry.

11. Network Infrastructure

Stipulate that vendors provide information on the broadband infrastructure by requiring network maps when applicants seek Clever Network and Broadband Connect funding. Such maps are to be publicly available on the organisations website, DCITA or State government websites. A minimum amount of information should be defined. This information must include technology deployed, physical path, capacity (committed and spare), interconnection points should be included.

Broadband Connect

3.2 Potential for innovation in program design

Q1 How can the design and delivery of Broadband Connect be optimised to achieve long term sustainable quality broadband solutions for regional, rural and remote Australians?

Q2 What means can/should be used to encourage further capital investment in infrastructure that will support competitive networks and services under Broadband Connect and beyond?

Q3 How can Broadband Connect funding be structured to provide the best incentives for investment?

RAPAD does not have the expertise to speak on specific innovative technologies. A principle of BC and CN is that of equity of access and long term strategic planning encompassing a with a futures orientated perspective to all funding, i.e. funding based on the proposed delivery of innovative technologies which have the capacity to allow further development over the next decade rather than short term fixes. As stated throughout our comments, a region wide (benefit) approach must be adopted and all technology implementation must be cognisant with this.

3.4.1 Sustainable investment

Terrestrial or satellite expansion

Q4 Is terrestrial or satellite the most appropriate means of delivering broadband in regional, rural and remote areas?

Q5 Can satellite be delivered as competitively as terrestrial services?

Q6 Should participating providers be required to commit formally to service the areas they identify in registration applications?

RAPAD supports a strategic broadband infrastructure development approach.

RAPAD makes it very clear that in specific circumstances (rural, remote) that satellite service is the only option.

While the focus of subsidies for the deployment of broadband infrastructure should be in building terrestrial infrastructure, it should not be at the total expense of satellite services as there is still a case where satellite is potentially the only answer (from a cost basis as distinct from a delivery basis).

Technology developments and the availability of new broadband services are expected to require greater bandwidths which are more efficiently delivered in terms of scale and economics by terrestrial systems. While the cost may be inefficient in the short term the long term benefits having access to greater bandwidths (from terrestrial) in the future must not be overlooked.

RAPAD certainly supports individuals in remote and rural locations having access to a HiBiS program as it has significantly assisted those applicants. A strategic approach - awareness, developing demand registers, marshalling business activity towards broadband as an economic enabler and seeking major broadband user support for the benefit of the region is an approach that would facilitate terrestrial infrastructure that is more cost effective and can be upgraded to meet future needs.

Effectively targeting support to areas of need

Q11 Should it be mandatory for program participants under Broadband Connect to provide additional information as listed below as a condition of registration?

- ***intended future service areas (with approximate dates of commencement of supply;***
- ***the viable geographic reach of broadband services from central transmission points for service delivery;***
- ***technical barriers limiting the application of providers' technology in regional communities;***
- ***the capacity of providers' technology to support varying types of broadband traffic and use;***
- ***the range of service speeds providers' technology would be able to support;***
- ***the capacity of providers' technology to provide services now and to accommodate new developments such as increased speed , usage and applications in the future;***
- ***the particular relevance of the technology to other communication services (for example, capacity to be used also for supporting mobile telephony services);***
- ***a summary of the broad nature of technology they employ; and***
- ***anticipated timing and target areas for their technology deployment in regional Australia.***

RAPAD supports the concept of program participants being accountable for providing additional information throughout the registration process. RAPAD sees this consistent with a principle of infrastructure provision based on a long term strategic intention

3.4.3. Method of Payment

Incentives

Q21 Should funding be provided:

- ***based on the number of customers connected?***
- ***the number potential premises with potential access?***
- ***a combination of both methods?***

Funding should not be based on numbers of customers connected as this will be detrimental to those in rural and remote areas.

Population densities are obviously very low in our region and all rural remote regions and to base any payment system on numbers alone favours the more populated areas.

Clever Networks

4.4 Issues discussion

The role of the brokers' network

What form of broker network will provide the best outcome?

Q1 Considering the current DAB program structure - involving State, community and sectoral brokers - is the current arrangement the best model for catalysing broadband developments in regional, rural and remote Australia or how should it evolve?

As stated in our opening letter, it is highly unlikely that a single approach will produce the best outcomes across all regions and states due to the geographic/population density of these areas, the periodicity of demand aggregation programs in individual states and the structures applied at the state level. For example our region has only just commenced a demand aggregation program, with no federal funding, whereas other regions have progressed down this path for several years. A "one-size fits all" has the potential to under deliver on the policy objectives of the program.

Our discussions concur with similar thoughts of some brokers that there has been a number of learning's from the present round of funding. These being that there is a need for greater cross fertilisation between sectorial groups, health, education, community groups. The state needs to be urged to ensure a whole of government approach to ensure leverage occurs for communities.

In regions such as RAPAD's the major influencers for broadband are the state agencies and local government. Both bodies tend to have independent (and mature) purchasing arrangements, suppliers agreements/panels, commitments to purchasing timeframes and purchasing objectives. Therefore national and state ICT policy directions will influence outcomes in demand aggregation activities with negative impacts on the whole of community benefits due to the limited coverage of the technology deployed. State government must work more closely with local government and communities on purchasing activities.

RAPAD requests both state and community brokers are required but working in unison across all sectors.

Q2 What role can/should brokers play in promoting or facilitating the effective use of broadband applications in order to enable communities and businesses to capture the transformational benefits of broadband?

Again - capacity building. It is apparent that whilst discussion continues on the benefits of broadband for government service delivery, education and health applications and new services (VoIP, VOD, IPTV) two broadband capabilities remain dominant – 'always on', and speed. A portfolio of applications would assist in the general awareness of broadband as an economic enabler, to act as incentives to connect to broadband and to assist business breakthrough the technology barrier.

A general consensus is sections of the community aren't aware or don't know.

Brokers could also play a vital broadband awareness role. The aim of the awareness function is to work in and with communities as a focal reference point assisting local businesses, community groups and local government with the broadband transition. An analogy would be that in the Natural Resource Management

(NRM) fields where equal consideration is given to awareness and information exchange (and uptake), as it is to on ground actions. One will not occur without the other, or rather onground actions occur more so, after information take-up.

ICT could learn much from the NRM field.

Databases - If a suitable database of information was developed there are two roles for brokers. A central depository of broadband applications needs to be established. It is apparent that there is scant information on successful broadband applications. The database would need to be divided into various industry segments (i.e. agricultural, health, education, business, transport etc) fully describing the application in terms similar to a case study giving suitable reference sites and information about the problem addressed, the solution and the benefits derived. Without a list of contract persons prepared to act as mentors and information sources the data may be of limited value.

To supplement this applications database a second database is required to list the suppliers who provide the solution described. They must be endorsed by the organisation(s) that implemented the broadband solution to ensure the integrity of the information.

Q3 What other resources or programs should the brokers be aware of in this role?

In local government, and associated private sectors, regions have regional roads alliances to discuss road transport infrastructure and planning. If ICT is the economic enabler of this century; and there is little doubt it is, then regions must adopt a similar view to ICT regional planning groups. Brokers could play a key role in facilitating this, with federal and state government support.

It is crucial that brokers are fully conversant with federal and state initiatives or directions in their roles. Because demand aggregation programs are active in areas where market failure has limited the availability of broadband or broadband penetration is considered low any program, initiative or development that can improve a business case for infrastructure rollout is essential.

A valuable resource that is not available is the status of telecommunications infrastructure throughout Australia. The generic response by carriers and ISPs when such information is requested is that the information is confidential and commercial. A mapping of current infrastructure showing technology, bandwidth, interconnection points, spare capacity and future plans would assist maximise the outcomes. It could be argued that governments should require suppliers to provide the information on the quality and type of infrastructure in particular areas before any taxpayer funded support can be provided to such carriers.

Q4 Should the broker role include an increased focus on 'effective use' outcomes and, if so, how can this best be achieved?

RAPAD would not like a very clarification of the term 'effective use' before this was adopted. Does it refer to?

- increased economic growth and economic development outcomes for the region/community,
- over what period of time should this economic activity occur,

- is a short term or medium term outcome required
- what incentives/remedies/penalties can/should the broker apply to control the “effective use” and
- what measurement criteria is to be imposed (planned, actual, elements measured).

The balance between effective use and other beneficial aspects of broadband may be distorted if an inappropriate focus on “effective use” is adopted.

Broadband for the RAPAD region fulfils a role of economic enabler as well as lifestyle enabler. Broadband will be just part of the vital infrastructure for the region as is the community benefit through other lifestyle related factors such as social infrastructure, roads and water. Without broadband there is another factor that sees business and population migration (or disincentives to move to a region) to areas better served.

Q6 How might the brokers play a role in facilitating/supporting community-wide connectivity and community-wide (cross-sectoral) networks?

Broadband initiatives that are lead by major bandwidth users (e.g. health and education) have a primary objective designed to service that industry and the community benefit (small business and residents) gained is only a supplementary benefit (e.g. ADSL services to a town). Larger bandwidth user organisations tend to be adopters of “accepted” technologies and usually have higher performance criteria than might otherwise be accepted by users with smaller requirements.

Very few of these larger organisations exist in the RAPAD region.

A community and state broker lead demand aggregation takes a whole of region (consisting usually of a number of communities) focus with the aim of maximising the coverage of broadband in that region. Therefore the focus is not on delivering broadband services to a select few locations, such as the school or hospital/clinic (which is most probably in the centre of town) but rather to maximise the coverage area.

The broker activity is in areas where it is marginal or non-commercial for broadband coverage therefore the absence of cross-sectoral demand is a severe inhibiting factor. The program would achieve better outcomes if a cross-sectoral broker was engaged rather than sectoral specific demand aggregation approaches.

In an area like RAPAD’s, cross fertilisation and multisector approaches are paramount.

Q7 Should future demand aggregation activities be focussed in areas that have yet to receive terrestrial broadband services under HiBIS to support the delivery of the new Broadband Connect program?

RAPAD supports a strategic broadband infrastructure development approach. RAPAD makes it very clear that in specific circumstances (rural, remote) that satellite service is the only option.

RAPAD certainly supports individuals in remote and rural locations having access to a HiBiS program as it has significantly assisted those applicants. A strategic approach - awareness, developing demand registers, marshalling business activity towards

broadband as an economic enabler and seeking major broadband user support for the benefit of the region is an approach that would facilitate terrestrial infrastructure that is more cost effective and can be upgraded to meet future needs.

Terrestrial areas yet to receive broadband services under HiBIS could be priority areas provided that access to Broadband Connect and Clever Networks funding were mutually inclusive and that a strategic approach was the desired option as such an approach considers the broadband infrastructure for the region and its incorporation into a region and state-wide strategic plan for effective broadband infrastructure.

Targeted services for Clever Networks initiatives

Q8 Are health, education, emergency services and local government the appropriate services for Clever Networks to target?

State and federal agencies such as health and education through their enormous buying power should have a significant positive impact on service delivery to regional Australia, particularly remote and rural areas. They should have sufficient purchasing power to influence suppliers.

By examining the extent of the benefit the program will differentiate between the host agency driven benefit and primary benefits to the regional community.

Also assuming that no matching Clever Networks equivalent program is initiated for future telecommunications infrastructure projects, this program will be the only opportunity for communities to seek funding to construct infrastructure that meets two critical elements; scalability to cater for future broadband applications and stimulating competition tension to bring the best metropolitan equivalent broadband service to the region. To achieve the best possible outcome for the community the program must fund on the principle of non-exclusive access and operation. That is, any funded infrastructure must have as core principles, wholesale of capacity and non-exclusive usage agreements.

There is also a propensity for governments to focus on large scale suppliers, excluding local suppliers from participating in infrastructure projects funded by Clever Networks. Therefore the program should consider health and education as one driver but as outlined above require more extensive input from state/community brokers to maximise the program outcomes.

Local government in the RAPAD region is in some cases the most significant user and should remain a target for attention for funding.

Q10 What other sectors, if any, should also be considered?

RAPAD supports a strategic approach based on a whole of community demand and supply. Sectors will benefit from this approach, whereas from a sector driven approach, some parts of the community will miss out.

Q11 Should there be a focus on particular applications/sectors which will require and drive network or industry capabilities?

The focus on particular applications/sectors need only occur to the extent that those applications/sectors support the development of broadband infrastructure to the region/community and distribution of broadband services within those regional communities (i.e. the last mile) desirous of attaining or upgrading broadband services.

Awareness of the applications, their benefits and applicability to regional services/businesses is a key determinant of the uptake of applications, as is the support and servicing components to businesses adopting the applications. Implementing a program that simplifies regional business understanding of the benefits to their businesses and community of applications that utilise broadband service is one strategy that is likely to promote broadband uptake.

As previously stated adopting a direction that segregates applications or sectors destroys the business case for broadband infrastructure deployment in a region. In an area such as RAPAD's where funding support is essential due to a lesser return or simply non-commercial broadband areas, maximising the demand is the most singular key component for establishing the viability and demand for broadband services.

Q12 What strategies could be incorporated into the program design to ensure that investment under Clever Networks provides the greatest holistic community benefit?

- a strategic whole of region approach coming from a broker led planning regime
- long term future based development not short term fund chasing approaches.
- a whole of region demand assessment
- maximise the availability of broadband to the whole community not individual sectoral elements;
- regional / community support statements for any applications;
- applications to state how their solution will meet the needs of the regional coverage needs.
- detail of the scalability for triple play; and
- details, where applicable, on partnerships for local ICT industry development.

Q18 Should there be specified minimum broadband specifications (eg. bandwidth, latency etc) for Clever Networks and, if so, what should they be and how should they be determined?

Yes. Minimum standards should apply consistent with our guiding principles.

New infrastructure access arrangements

Q22 For any new infrastructure created or made available, should there be specified minimum infrastructure access arrangements for parties other than infrastructure owners, such as a wholesale-rate for backhaul?

Yes. Priority should be given to an open access broadband backhaul regime. These arrangements could be consistent or independent of industry regulatory requirements under the TPA or ancillary telecommunications legislation.

The program should develop criteria that give preference to vendors operating in a wholesale only mode. That is, the vendor has no interest either direct or indirectly (i.e. part ownership or partnership arrangements) of a retail broadband services vendor.

Q23 How realistic is such a requirement, and how tangible are the likely benefits of the approach?

The requirement is very realistic given the number of vendors accredited under HiBIS and the emergence of new technologies offering lower capital costs. The likely

benefits include stimulation of the telecommunications industry, support for innovation, cross impacts for mobile services delivery(i.e. part of the infrastructure sold to mobile operators) and lower entry costs for new entrants.

Q24 How can an appropriate charging regime for such access be determined?

The industry should propose charging regimes that are below industry negotiated arrangements as the infrastructure has been subsidised by public funds. DCITA or a panel of experts could evaluate the proposed wholesale arrangements. Disputes could be referred to the ACCC. The process would be supplementary and independent to established arbitration or regulation processes.

For further information please contact

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