



## **CLEVER NETWORKS DISCUSSION PAPER**

**Comments made by Management Committee of the CTC Association**

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In response to the Clever Networks Discussion Paper, the Community Technology Centres Association would like to address the following comments. This is from a community aspect.

As a network that assists communities to develop skills and capabilities to realise the social and economic benefits of broadband, we believe this program should not only improve the access to broadband, but also encourage the use of broadband in communities. Education on the use and security of broadband is critical to its successful diffusion into rural and remote areas.

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- 1. 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 the model is already established with many infrastructures in place, existing applications and infrastructure should be capitalised on and used to ensure it does work in the long term. Infrastructure should remain community owned as it is paid for by government, thus allowing for access from services if required eg. Emergency services save resources and money in sharing infrastructure.

Considering geographic size of states and individual state roles and priorities in telecommunications, it is difficult that one size would fit all for all states. Hence funding should be allocated appropriately as attending the Queensland forum, they expected more money than other states due to their size. Populations and skill levels need to be considered.

**2. 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?**

Telecommunications experts and brokers are not marketers and many are not people communicators and do not know local communities. The program should utilise agencies and facilities already established in regional areas to promote the use of broadband applications rather than reinvent the wheel. Partnership programs with online access centres, community technology centres, neighbourhood centres and residents associations should be used as they already have a captive market. However these agencies need to get some form of remuneration in return for their efforts.

An example of this is the Eden Community Access Centre: The community broker works with the Eden Community Access Centre to undertake market research and community and business education campaigns, develop a business case to secure improved broadband connectivity, attract viable broadband service providers and implement broadband solutions.

**3. What other resources or programs should the brokers be aware of in this role?**

Providers/Brokers need to be aware of programs that are already in existence teaching communities about technology and bridging the gap in the digital divide.

These include the many types of Online Access Centres such as Community Technology centres, Government Access Centres and Rural Transaction Centres, not to mention Telecentres, public libraries and Unlimited Potential Smith Family program centres – all working to increase knowledge of how the internet can assist people in providing information and assistance.

This is already a captive audience that could be utilised.

There is also a strong push in online learning and ebusiness in commercial and government sectors. However the slowness of some technologies makes it difficult still to gain cost effective usage of applications such as Voice IP and Video Conferencing over IP. The Federal Government through Networking the Nation has invested a substantial amount of money in video conferencing units through online access centres and for these to be used more effectively, cost effective IP solutions for this area would be beneficial.

Providers/Brokers also need to realise that their promise of delivery of goods in communities need to be kept. An example is in Trundle when a HIBIS provider promised to deliver broadband to 28 locals and delivered it only to 21 and delivery wasn't effective and working well, then left the community in an upheaval as the HIBIS provider went bust. In one day alone, the community technology centre at Trundle had 87 dial in line drop outs without broadband

and receive a lot of the disgruntled customers because they have no where else to turn.

#### **4. Should the broker role include an increased focus on effective use outcomes and if so how can this best be achieved?**

All roles should have an evaluation method involved and key performance indicators based on outcomes. Sustainability has been an ongoing discussion amongst online access centres and should be the same with smaller HIBIS providers who may see this opportunity as a way of making money. A broker should look at the effective use of broadband in communities, however should utilise the resources available with those communities to create a demand and need model.

A question of why a provider/broker should reinvent the program and surveys when they can utilise applications and resources already in place and partner with organisations that have been fast funded by government makes for a more economic and reportable way of achieving outcomes.

#### **5. Should uptake and effective use of broadband by specific groups be targeted and if so which ones**

Specific groups that could utilise broadband more effectively in regional, remote and rural areas from research seem standard across the country. Community Technology Centres in NSW have liaised with our counterparts in other states as well as other NSW and federal government departments and commercial enterprises to come up with the following target markets that they find hard to access due to distance and lack of resources and include:

- **emergency services** – utilisation of information online and reporting – many emergency service organisations are currently spending much money and resources in training their volunteers on computer applications to assist in reporting and information dissemination
- **health related issues** - the sick and carers to assist them with information and e-health options
- **E-training - school leavers** and **mature aged worker** training for educational purposes and employment opportunities – e-learning, remote training providing independence and breaking down barriers in educational opportunities due to online options. CTCs are working closely with flexible learning, TAFE and community colleges in looking at providing courses online and through video conferencing. Our objective is to keep regional youth in their regional areas
- **E-business - home based/micro businesses** eg. Farmers who could access new business via the web
- **Indigenous communities** – who many not have access to computers let alone need broadband. Eg. NSW industrial Relations Department are using CTCs online access program to provide education via their website to indigenous communities

- **seniors** who are unable to travel and could use the web as a source of entertainment, socialisation, information and to fulfil shopping and banking needs
- **carers** who need some social aspect and are house bound
- **General communities** – access to online programs and also how to use it, keep it secure in items such as shopping and banking, information. As banks close in regional areas, internet banking is becoming more common

It is important to note that “one size” does not fit all states. Each state is geographically and state government resourced differently and needs to be considered in the funding and it also be seen as being equally dispersed amongst communities.

**6. How might the brokers play a role in facilitating supporting community wide connectivity and community wide networks?**

Brokers and providers need to work with current community infrastructures to communicate with regional areas. Rather than go out and start from scratch, they can utilise networks and hubs within communities to get information about the needs and demands of community connectivity. By utilising networks for not only analysing infrastructure but also providing the applications and understanding of the benefits of broadband, more support locally will be gained as people understand the benefits. Communication is a major factor in communities and an outside person telling them what should be done may not be accepted.

**7. 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?**

Areas that do not have access should be focussed on, however like many programs, those that are started in some areas are started and then not finished or utilised as there is no continuation of the service.

If anything does happen, communities should not be just “tuned on” to broadband, but rather experience it in areas such as training programs, security, appropriate use, how to use it effectively and be in control of it.

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

In regional or rural areas, travelling to a training provider to study can be difficult because of physical distance or personal circumstance. In addition to those factors online learning can be inhibited because of limited computer access or Internet connection. E-education and E-health are vital aspects in growth for communities.

Students can feel a sense of isolation arising from a lack of interaction with

other students and not having ready access to support networks, research material and real life examples

A vast array of study opportunities are provided leading to careers and employment that would have otherwise required students to travel or move away from home, or were otherwise unaffordable.

Mature-aged students and the unemployed who previously had little or no computer literacy can develop skills and confidence while using a range of computer programs and the internet.

There could also be an opportunity to work with health, education and emergency services by using video conferencing over IP, so many people can still use interaction with voice and visual. Video conferencing in regional areas if more affordable over broadband could bring a specialist into a town, a trainer to a farmer, the government into a community.

Assessing doctors and specialists in regional areas can be an arduous task with some doctors booked out in advance so you are not sick by the time you get to see them. Online access to patient records, information and specialists can be of valuable assistance in areas where it is hard to get information.

Health information including Occupational Health and Safety and Workers Compensation could also be included in this area. These days farmers who hire staff must go through specific training.

## **9. Should there be priorities within this group?**

Emergency services that rely heavily on volunteers such as the Rural Fire Service and State Emergency Services should be given priority through the development of appropriate program guidelines. Provision of such would be significant for the following reasons. It will improve communication channels and data flows for decision making during emergencies, increase productivity and satisfaction for volunteers, reward volunteers through improvement of personal skill sets and finally act as an important vector for broadband diffusion and social capital development in rural and remote areas.

There needs to be a development of partnerships between all levels of Government (Local, State and Federal) to ensure the equitable and cost-effective diffusion of high bandwidth infrastructure and services to rural and remote areas of the region. Priorities may depend on the region eg. Prone to bush fires, floods etc and actual on the ground need rather than statistics.

## **10. What other sectors, if any, should also be considered?**

Ensure all online access centres and similar institutions such as Rural Transaction Centres (RTCs) and Public Libraries etc; in the state are provided with low-cost sustainable high bandwidth (2mb/sec). Not only will this address significant digital divide (access, adoption, skill development) issues but also

provide critical backup for rural and remote customers during service outages (lightening etc;).

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

The members of the CTC Association believe it is vital that program participants provide information such as intended future service, geographic reach, technical barriers, and speed as many people in regional areas are not educated on broadband enough.

Utilisation of Online Access Centres to assist clients obtain information and know how to use broadband is vital.

- **Training**

The most basic application that should be funded by the program is a demand based sequential training program for first time adopters and possibly and a shorter skills enhancement program for emergent broadband applications. Lack of training opportunities in rural and remote areas is a major barrier to the further diffusion of on-line services and associated service delivery innovations. Provision of training is essential in rural and remote areas to enable them to effectively deal with the ongoing structural adjustment of local economies away from labour intensive to more technology intensive economic activity.

- **First-time adopters (how to turn the computer on)**

The Federal Department of Education Science and Technology (DEST) Building Information Technology Skills for Older Workers (BITES) Program could with certain improvements be used as a basis for such a program. Basic improvements would be the development of basic training materials and the cost-effective delivery of such a program through on-line access centres and a wholesale relaxation of eligibility rules. Efficient and cost effective delivery of such a program could be achieved at a cost of \$10/hr per participant for groups of 5-10 for a course of 20 hours. More advanced skills enhancement programs could either be delivered on-line or through on-line access centres. Costs for such a program would vary dependent on subject matter. There may also be a social equity case for the provision of concessions for certain participants (i.e. long term unemployed) and 100% subsidy for others such as active volunteers (RFS, SES etc;).

- **Non-Profit volunteer sector including emergency services**

Provision of ICT related training to the Non-profit sector in rural and remote areas should also be prioritised through the development of appropriate program guidelines for the following reasons:  
It will improve communication channels and data flows for decision making during emergencies, increase productivity and satisfaction

for volunteers, reward volunteers through improvement of personal skill sets and finally act as an important vector for broadband diffusion and social capital development in rural and remote areas.

- **Home-based business**

**Development and support** should be a prioritised target for the program as it directly relates to harnessing the economic and social benefits associated with the diffusion of BB into rural and remote areas.

- **On-line service delivery to rural and remote areas**

Many government departments both state and federal have or are in the process of developing on-line applications for rural and remote areas. Governments believe that such initiatives provide a cost-effective distribution of government policy initiatives to regional, rural and remote areas. However, because there is no co-ordination or strategic management of these various initiatives there remain significant barriers to their effective diffusion and utilisation by their target audience.

This situation could be improved by:

- 1) CTCs and online access centres focusing directly on the delivery of these various initiatives especially those from smaller departmental units which directly target particular groups in rural and remote areas e.g. NSW Attorney Generals Department, Missing Persons Unit ; CTCs are already working with delivering online and video conferencing programs with these departments.
- 2) The utilisation of on-line access centres for publicity ,demonstration and the provision of assisted access to these applications
- 3) Brokers and HIBIS providers working with online access centre points

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

We believe that the government needs to look at the whole project and the benefit to the taxpayer as the end result. Utilise infrastructure already in communities, work with state governments and local governments to use their infrastructure and help communities utilise this technology by teaching them the applications and safe usage of broadband.

Strong support and recognition of the role of the non-profit sector and of volunteerism in formation of social capital and the resultant public good generation.

## **13. Is there an ideal balance between infrastructure and applications streams and if so how can it be identified?**

Where there is an obvious link between applications and take up of Broadband Services e.g., basic IT literacy in rural and remote areas is a significant barrier to the take up and efficient utilisation of these services.

There must be an ideal balance. Why bring broadband to communities who won't use it. Hence education and training and showing the use of different applications is very beneficial. This can be done by the government showcasing websites of interest that you have already funded eg. Netaalert that are already out there to assist end users.

**14. What is the best balance between competitively determined and strategic investment funding?**

This balance must be determined by need and disadvantage including geographic and socio-economic. There are also issues concerning long- term sustainability of trying to promote competitive solutions in areas that are economically marginal or unsustainable because of geographic location. The emphasis should be on sustainable service delivery to basically uneconomic rural and remote areas.

**15. Would potential proposals be improved if the guidelines permit proposals which encompass both infrastructure and applications aspects?**

Yes- holistic solutions to a wide variety of needs for each locality would be preferable to single application solutions. Environmental remote sensing would be a useful application to extend the benefit of wireless infrastructure.

**16. What key strategic investments in broadband infrastructure have the potential to provide the best outcomes?**

Extension of backbone networks to provide competition in back-haul, lower costs an open up possibilities for greater innovation and equity in bandwidth provision. Electrification of remote sites has the potential to provide enormous improvements to telecommunications provision in a number of rural and remote areas.

**17. Are there complementary sources of funding/contributions which should be considered in developing the guidelines for the Clever Networks program?**

- Existing investments in networks by both State and local governments;
- Access to transmission sites;
- Volunteer labour in public on-line access centres and emergency services.
- Other resources provided in community
- Paid and non paid man hours

**18. 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?**

- The minimum bandwidth provided to the end user should be 2Mb/sec;
- Latency should be reduced through provision of terrestrial solutions to allow VOIP and other innovative real-time interactive applications;

**19. What steps/mechanisms can or should be incorporated if any into Clever Networks to enable regional, rural and remote communities progressively to transition to high/higher bandwidth networks?**

Use what is already available so you don't have to reinvent new infrastructure. GAC Centres, Rural Transaction Centres, Telecentres, Online Access Centres, Community Technology Centres are already established.

It is just a question of supplying them with cheap sustainable bandwidth on the basis that they are providing a significant public good. Some infrastructure investment will not change over time e.g., optic fibre back-haul, transmission sites and towers. Sustainable long-term access to this infrastructure is essential. Access technologies can change over time e.g. CDMA however core infrastructure requirements remain the same.

**20. New technologies are showing considerable promise in providing broadband access to users well outside the current DSL limitations. What strategies should be adopted to encourage and support deployment of these new technologies and to ensure newly emerged technologies are not precluded during the lifecycle of the program?**

All access technologies require fibre back-haul and in the case of wireless towers. ADSL technologies have almost reached the limit of their economically feasible deployment there should be an emphasis on wireless solutions for remaining rural and remote areas. Harden Shire Council in collaboration with Telstra is proposing to trial the use of ADSL extenders in every exchange in the Shire in an attempt to provide ubiquitous coverage.

This trial could be an exception to the above statement.

**21. What supporting information should be required in Clever Networks proposals in order for their sustainability beyond the life of the program to be evaluated effectively and what factors should be considered in determining sustainability?**

- Estimates of probable productivity gains;
- Degree of public benefit generated
- Case Studies
- Customer feedback
- Evaluation methods of past projects

**22. 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, back haul and perhaps relaxed co-location arrangements. Ideally it would be better if the infrastructure was publicly owned with carriers leasing it.

**23. How realistic is such a requirement and how tangible are the likely benefits of the approach?**

In some situations public ownership (i.e. local government ownership of transmission infrastructure) might be practical.

In really remote areas if infrastructure is not publicly owned builders should be protected so they can provide a viable service without the threat of competitors' cherry picking the best customers.

**24. How can an appropriate charging regime for such access be determined?**

Consideration must be made of location and population density of service area

**25. What other program activities should be taken into consideration in determining Clever Network program eligibility and entitlement?**

The Online Working Council Final Report identified the unique role that On-line Access Centres play in providing information and communications technology (ICT) access and skills to individuals and groups, as well as engaging communities and the private sector in building social and economic networks. These unique elements clearly provide many reasons for the continued support by all tiers of government.

**26. Having regard to the possible diversity of the activities under Clever Networks, what strategies can/should be considered?**

The use of structures already funded or available in communities to deliver education, assistance and resources on the use of broadband eg. CTCs, Telecentres needs to be addresses. Governments have invested a lot of money in establishing these networks to assist in the equitable delivery of applications.

The use of these resources the government has developed rather than reinvent the program under a different name and minister needs to be addressed. Other resources include. Eg. Netaalert, e-businessguide.gov.au

Training and education of use of broadband and the safety of broadband needs to be funded in some areas that don't have access to it or cannot afford to attend.

Local holistic broadband educational programs need to be developed and instigated over the three year strategy and include the introduction of new technologies such as Voice IP and Video Conferencing over IP.