



Assisting in the promotion and coordination  
of ICT development in the Ballarat Region

**Broadband Connect and Clever Networks:  
Supporting Investment in Sustainable Broadband Infrastructure**

Submission to the Department of Communications, Information Technology and the  
Arts on behalf of [cBallarat Ltd](#).

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## **Broadband Connect and Clever Networks: Supporting Investment in Sustainable Broadband Infrastructure**

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### **Executive Summary**

The purpose of this submission is to canvas the prospect of developing a National Technical Forum, whose function it would be to develop and maintain a national map of communications infrastructure across Australia and to provide a forum and facility by which a more accurate and dispassionate technical perspective of Australia's communications can be sighted and understood. The Forum may well also be able to assist in the development of technical forecasts and predictions of infrastructure in the future with a distinct aim of assisting in better co-ordination and collaboration between providers, stakeholders and networks in the continual progress of our national communications infrastructure.

### **Background**

cBallarat Ltd is a non profit organisation and is the peak strategic IT body in the Ballarat region. Independently constituted, the organisation works very closely with the Council of the City of Ballarat with regard to the strategic issues relating to ICT and connectivity in the region. The Board of cBallarat is made up of a diverse group of experts from all fields, both supply-side and demand-side. Recent projects have included the initiation of the Ballarat ICT Clusters project and the facilitation of forums and development of discussion to assist the City of Ballarat implement, through the planning regulations, the provision of facilities in new estates to ensure the immediate provision of broadband therein.

The Ballarat region has long been involved with initiatives and strategies relating to the improvement of telecommunications infrastructure and services to its communities. Many of those initiatives have placed Ballarat in an enviable position in terms of the range and diversity of infrastructure and services available to the general public and businesses. However it is also acutely aware that that range and diversity tails off dramatically as one leaves the greater Ballarat area and traverses beyond into the regional and rural areas around it.

The Commonwealth Government, through its range of funding initiatives in these fields over past years, has seeded a number of significant projects that have had a positive impact on the regional and rural areas of Western and Central Victoria and in respect of which many of us have had the privilege of being involved.

Some of the underlying motivations behind many of these projects have included the anxiety to create better infrastructure, more access to faster broadband, better services and more sustainable operations. Some projects have involved the commissioning of commercial providers, such as the [GRHANet Project](#) have been responsible for significant new builds of infrastructure. Others, such as the development and

establishment of Telecommunity Centres under Ballarat's Televillage project<sup>ii</sup>, have had clear had important impacts on specific communities and community groups. This particular initiative benefited greatly in regard to the Telecommunity Centres with its association and mutual affiliation with the Regional Connectivity Project<sup>iii</sup> which ended some years ago.

There are numerous other examples across the region where projects analogous to these have been implemented and which have made a positive contribution either to the levels of infrastructure or services available or where the understanding, awareness and/or skills levels of the communities or individuals involved have been measurably improved.

Many of these projects were capable of being brought to fruition as a result of funding initiatives from Local, State and Federal Governments. At the Federal Government, the relevant initiatives included Networking the Nation (NTN), the National Communications Fund and later the Co-ordinated Communications Infrastructure Fund. It is noteworthy that some of these funding initiatives date back to the early 90s', such as the Regional Telecommunications Infrastructure Fund which evolved into NTN.

It is noteworthy also that the Federal Government has seen that the issue of connectivity and access to ICT and telecommunications services in regional, rural and remote areas of Australia has received high priority and significant funding for a significant amount of time. It would appear that the funding initiatives outlined in the Discussion Paper do not derogate either from that focus or priority and in this respect, cBallarat commends the Federal Government for the same. The impact and benefits of progressively greater connectivity and and better access to telecommunications and infrastructure in regional, rural and remote Australia has been well stated and is beyond debate.

### **National Focus?**

In term of strategic development of connectivity and telecommunications services and infrastructure across the country, there has been some specific initiatives to assist in this area. For example, the [The Australian Government Information Management Office](#) started its life as the National Office for the Information Economy with a broad strategic mandate. Currently, the National Broadband Strategic Implementation Group (NBSIG) has been set up to oversee the implementation of the [National Broadband Strategy](#).

In terms of the future a number of [Co-Operative Research Centres](#) also focus variously on issues of [telecommunications and broadband](#). Cutting edge development of high speed networks is also taking place in the academic spheres with the progress of the [Australian Academic and Research Network](#) and [Grangenet](#).

### **Specific Focus**

The focus of the Discussion Paper is two fold. The first is to spell out in detail the extension of the evolved HIBIS scheme, Broadband Connect. The second is the investment of \$113 million in the "Clever Networks" Scheme.

The operation of HIBIS is now reasonably well known within regional rural and remote communities, although

anecdotal feedback from our own quarters suggests that there can be more to be done to alert potential beneficiaries. Much has been said about HIBIS. Of little doubt is that it is attractive to both ISPs and beneficiaries in the designated areas. Whilst the aim to create sustainable infrastructure in regional rural and remote areas and whilst there is some evidence that HIBIS has achieved some expansion of permanent networks in certain areas with installation or utilisation of ADSL, over a quarter of the rollouts to December 2005 were satellite systems.<sup>1</sup> To date, there is a view that HIBIS has not sparked the introduction of any other major alternative infrastructure deployment. The major impact of HIBIS in terms of infrastructure rollouts has so far therefore essentially been limited to the expansion of ADSL networks. Satellite technology as currently deployed leaves no lasting infrastructure improvements per se given that the equipment is very often portable and designed to provide service to a single household only.

It has been noted at page 7 of the Discussion Paper that 'several stakeholders have argued that the program would achieve more if some of the funding was allocated upfront to give providers certainty to invest in large scale broadband rollouts in rural areas'. It is submitted that whilst this argument has its attractions in terms of introducing and building longer term infrastructure, there is still little in the way of an ability to assist or direct the nature of the infrastructure to be deployed or a context within which such an assessment and decision can be made.

#### **A Longer Term view on the Technical Big Picture needed?**

Our view is that the situation is not new. The history of funding initiatives nationally has been premised on a number of things.

The first has been an open approach to the technologies to be utilised with a more usual concentration on the outcomes that could be achieved in both the short and longer terms with an emphasis on the applicant determining the appropriate technologies to be deployed. Related to this has been the issue of allowing market forces to have their impact on the choice of the most cost effective technologies. This approach is confirmed at page 9 of the Discussion Paper in terms of Technology Neutrality.

It is hard to argue that a Government should do otherwise, in the environment in which we operate in Australia and it may be argued that this is even more appropriate with the country's largest telecommunications company and infrastructure provider effectively transitioning itself into full market ownership.

The cases of new technologies rapidly outstripping investments in previous technologies has been well documented. In some cases it is simply a matter that technical developments move simply too fast. In other cases investment have been made without a full understanding of the technologies available or with regard to its longevity or durability. It would appear that this phenomenon is not set to abate itself any time soon with discussion about the future of Telstra' CDMA network and its touted replacement with a completely new 3/4G network<sup>2</sup>.

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<sup>1</sup> [http://www.dcita.gov.au/tel/higher\\_bandwidth\\_incentive\\_scheme\\_hibis/hibis\\_news](http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis/hibis_news)

<sup>2</sup> <http://www.wps.com.au/news.html?newskey=1495>

And discussions and debates with regard to the dilemmas of upgrading exchanges from ADSL to ADSL2 continue to build.

### **Clever Networks - Tracking Them**

Many of the issues raised above appear to be addressed in the Discussion Paper in the sections dealing with Clever Networks. However, the approach is still somewhat ambit. There is an assumption that the ever increasing plethora of technologies available should be exposed through the Clever Networks initiatives and that a full exploration of what is 'out there' will occur.

The reality is that there may well be technologies that do not get exposed or showcased either because companies with the potential to expose the same do not get involved with these initiatives or that companies pursuing funding under Clever Networks are not fully aware of the technologies that they might be capable of accessing.

### **A National Technical Forum?**

In Ballarat, there has long been an awareness of trying to expose probative developments to the right players. The process is is none too precise and the development of deep networks between the various players at all levels has been a avowed and well supported process by the City of Ballarat and cBallarat as the peak ICT strategic body.

At this level, a technical group within cBallarat evolved and discussions and reviews of new local technologies and developments has been increasingly frequent. As a result of this forum, there are very often cross referrals to various parties in and around the Ballarat region who may well benefit from the technology or, in respect of the supply side, provide opportunities where none might have been known about at the time.

In conjunction, there is a promotion and exposure of available technologies across a number of fronts with the hope that an approach is taken in terms of optimisation of resources and potential rationalisation of capital outlays. Examples include the utilisation by GRHANet of both Neighborhood Cable's network to provide specific end to end solutions for targetted health services whilst working closely with Telstra Countrywide to ensure a seamless integration of network services and active discussions amongst rival infrastructure providers about the prospects of utilising common, Council owned underground facilities to increase broadband penetration in the Ballarat region.

The State Government of Victoria, through its IT portfolio and in particular, through the industry development focus of [Multimedia Victoria](#) (MMV), with a similar approach and philosophy, has effectively created technology networks and clusters in many parts of the ICT spectrum and is often an integral part of spiking new technology projects in Victoria. Recent examples variously include the [RFID Cluster](#), the

establishment of major operations in Ballarat and Melbourne of [Pivod](#), a WA based multimedia company and the development of its [Broadband Access Office](#) to provide junction box/networking activity between itself, broadband providers and consumers/beneficiaries.

The effectiveness of having a common forum or junction box available to all with regard to what is out there and what might be, has had some probative impacts.

It is submitted that, on a national scale, one of the components that could well accelerate the effective development of more uniform and ubiquitous technology rollouts across Australia, would be a body and facility tasked with the responsibility of mapping current infrastructure and technologies deployed across the country, identifying emerging technologies and engaging dialogue interaction and feedback between infrastructure providers, equipment suppliers and major infrastructure users across the country.

The mapping and data collection role in terms of infrastructure provision would form a key component of the process and whilst there will be restrictions in terms of commercial confidentiality, it is submitted that a more accurate picture of the technical development and progress of systems would of itself provide a valuable resource to both industry players and the Government in its forward planning processes relating to both policy development and funding initiatives.

#### **Form and Structure**

From the outset, it is envisaged that the body set up to be the National Technical Forum would be independent and non-aligned, particularly from an industry perspective. Membership is anticipated to be made up of infrastructure and telecommunications providers, service providers, network operators and conceivably, equipment makers and suppliers. Equally however, it should also include local council representatives, relevant government departments, academics institutions and major stakeholder bodies both from the supply side and demand side. In short, the membership would be inclusive rather than exclusive.

The form and function of such a body differs from bodies such as the [Australian Information Industry Association](#) in that the body will not have an advocacy or lobbying role per se. Rather, the major focus will be of information and data collation and exchange and the facilitation of networking and possible collaboration and joint development between members and stakeholders.

And whilst much information and data is maintained and collated by the [Australian Communications and Media Authority](#), there is a significant amount of information that is likely not to be reported or collected simply because there is no requirement to do so.

It is anticipated that as a voluntary body, a question that might be raised would be, how would the National Technical Forum be able to persuade industry players and stakeholders to participate and contribute to the information and data collation if there is no compulsion to do so? It is submitted that the answer lies in appropriate and inclusive canvassing and profiling of the roles. Bodies such as [.au Domain Administration Ltd](#)

and internationally, [the Internet Engineering Task Force](#), (IETF) do not have compulsory membership or participation. In the case of the IETF, the level of voluntary participation and contribution therein by industry players, stakeholders and research institutions effectively sets the standards by which the Internet operates.

Whilst it cannot be argued that the National Technical Forum will by right of existence, attract appropriate membership and participation from its inception, it is submitted that with the appropriate development resources and funding, the case for membership by a broad section of relevant bodies and organisations can easily be made out, given that there is currently no central point repository of this kind and no information and data exchange of this nature available in Australia.

The mission and objectives of the National Technical Forum would broadly be:

1. to map and record, on a permissive basis, as much data as can be collected about infrastructure and services currently available across all parts of Australia and to become an authoritative central repository of such information.
2. To provide active information exchange between the members of the Forum, insofar as this is commercially feasible.
3. To provide a networking and “junction box” role as between members and between members and other potentially relevant parties in respect of the progress and development of new technologies and innovations.
4. To provide regular updates to the Forum and to interested parties such as local council planning departments, the National Broadband Strategic Implementation Group, the [Department of Communications Information Technology and the Arts](#) and the [Australian Communications and Media Authority](#).
5. To provide and facilitate regular events (real forums, presentations and media) on current infrastructure growth, the showcasing of current initiatives and future technologies .

To do the work required, it is submitted that a full time secretariat will need to be set up. The task will require the ability for the secretariat, whether alone or in conjunction with other teams, to establish maintain and expand a national infrastructure map/database insofar as the information can be gathered on a permissive basis.

There would be no reason not to seek industry sponsorship once the Forum has been established and is up and running, but as with organisations such as the [Internet Society of Australia](#), responsible sponsors would need to anticipate non-alignment.

## Outcomes

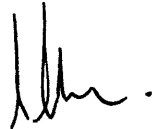
The intended outcomes of the Forum, once established, should be:

1. A better big picture of the infrastructure and services landscape across Australia, not just in respect of the nature of the services, but hopefully a drill down to the equipment levels as well.
2. More communications and exchange between service and infrastructure providers and potentially more highlighting of potential crossover and collaboration between providers and stakeholders in the appropriate places.
3. Better ability to forecast and plan on a national scale and also to highlight gaps and blackholes between various services areas, not just in respect of basic service provision but in respect of future-proofing through upgrades and replacement technologies.
4. Assist in identifying and ameliorating and even eliminating potential and possibly unnecessary duplication of capital investment in infrastructure and service rollouts.
5. Stronger debate and highlighting in terms of the various technologies currently available and on the horizon, with a hope that longer term technical visibility will result in more durable communications solutions.

It is not at any stage, suggested that the membership to the Forum be compulsory or that reporting be required. It is submitted that the optimal returns in terms of both contribution of accurate information and participation in exchanges, is when the motivation is driven from the benefits of participating or the detriments of not doing so. Again, the foremost example of this approach is that of the [IETF](#).

cBallarat is currently embarking on a planning and feasibility process in terms of establishing a National Technical Forum. It is submitted that an investment in such a Forum as described above, from the Clever Networks program would be valid and probative both from the perspective of the benefits broadly outlined above and in terms of contributing significantly to the developments that might take place in other programs under the Clever Networks Program.

It is our firm view that in the rapid development and demand for telecommunications and infrastructure services across the nation, the development of a National Technical Forum is not only desirable to ensure the sane and ordered development of a national infrastructure landscape, but absolutely essential, to ensure that the strategic, political and philosophical will and investment in infrastructure and services is soundly underpinned by a technical awareness of what is there now and what could and should be there in the future.

A handwritten signature in black ink, appearing to read 'G. Fong', with a small dot at the end.

Yours sincerely

George Fong  
ICT Co-Ordinator  
cBallarat Ltd

## End Notes

i. The project was initiated to implement a broadband information and communications technology network for the benefit of the health care sector within the Grampians Region under the GRHANet Project. As a result of developing this network, broadband will be made available in nearly 40 communities in Western Victoria. This was made possible through an \$8 Million grant from the [National Communications Fund](#) through the [Federal Department of Communications, Information Technology and the Arts](#). Significant other project contributions have been received from the Victorian Government's 'Growing Victoria' initiative that aims to establish broadband telecommunication connectivity to and between public health facilities across the State.

ii The City of Ballarat was selected in 1999 under the State Government's "Connecting Victoria" Ministerial Statement as one of two Victorian centres to develop a Televillage. A virtually unheard of concept, the Televillage project would allow the Ballarat community to encompass the Information Technology age, putting them in touch with not only their neighbors - but the rest of the world.

Ballarat was already recognised for its innovative IT development, and now had the opportunity to integrate that information and communications technology within all sections of its community, particularly to those in geographically and socially disadvantaged areas.

The aim of the Televillage project was to "connect the community" and to succeed would need the development of numerous initiatives not the least of which was the Ballarat Telecommunity Centres - to give people access, at the very least, to a computer and the Internet and to provide businesses with e-commerce training

### iii Regional Connectivity - Victoria

The University of Ballarat established a public Internet access presence in 13 small towns in central western Victoria. The University provided the key role in identifying these towns and opportunities in them to cooperate with other community activities. The University identified people who could form a local committee to be responsible for each site, but kept a broader network coordination active through personal contact, email and a monthly newsletter to exchange information and expertise. The sites were named Community Enterprise Centres (CECs) to focus attention on long term sustainability.

The area was selected for attention because of low levels of IT awareness and utilisation, high unemployment and low levels of per capita income. Of the 65 long-term unemployed given an opportunity under the Work for the Dole scheme, 52 (80 per cent) gained employment.

Informal and accredited IT training was provided to over 30 000 people and over 200 000 people attended and used the Internet and computers, with user friendly assistance from the 'Knowledge Navigator' at each site. On-site IT advice was provided to small businesses, for which demand was increasing by the end of the two years. It was estimated that the catalytic effect of ideas generated by the new technology brought

## End Notes

approximately \$38 million of new money into the region.

The sense of community and optimism was raised in each town, and a new level of initiative generated by the committee management processes. Social and technical skills were improved in a great many young people through the developmental atmosphere of the sites.

*Per [www.dcita.gov.au](http://www.dcita.gov.au)*