24 October, 2007

Mr Philip Costa MP
Chair
Legislative Assembly Standing Committee on Broadband in Rural and Regional Communities

Dear Mr Costa,

RE   CENTROC SUBMISSION TO THE LEGISLATIVE ASSEMBLY STANDING COMMITTEE ON BROADBAND IN RURAL AND REGIONAL COMMUNITIES

Thank you for providing this opportunity for Central NSW Councils to respond to your call for submissions regarding broadband in rural and regional communities.

Please find following the commentary from Centroc where we provide information regarding an audit of broadband capability of the region, the programming available under the *Broadband Now* Scheme through DCITA and anticipated service levels under the OPEL programme. Finally we raise some specific concerns regarding broadband delivery from Local Government's perspective.

Overall, Centroc has significant concerns regarding the metro-comparability of broadband delivery in the region, particularly in the medium to longer term.

If you would like any clarification regarding this response, please ring Ms Jennifer Bennett 0428 690 935.

Yours sincerely,

John Davis
CHAIRMAN

This Regional Organisation of Councils speaks for 220,000 residents of Central NSW covering 64,000sq kilometres comprising Bathurst Regional, Blayney, Cabonne, Cowra, Forbes, Lachlan, City of Lithgow, Mid Western Regional, Oberon, Orange City, Parkes, Weddin and Wellington Councils; Upper Macquarie and Central Tablelands County Councils

CENTROC

SUBMISSION TO THE LEGISLATIVE ASSEMBLY STANDING COMMITTEE ON BROADBAND IN RURAL AND REGIONAL COMMUNITIES

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SUBMISSION TO THE LEGISLATIVE ASSEMBLY STANDING COMMITTEE ON BROADBAND IN RURAL AND REGIONAL COMMUNITIES

The Central West Regional Organisation of Councils (Centroc) welcomes the opportunity to provide the following commentary regarding broadband provision for the region.

Centroc represents over 220,000 people through its 13 member Councils of Bathurst Regional, Blayney, Cabonne, Cowra, Forbes, Lachlan, Greater Lithgow City, Oberon, Orange City, Parkes, Mid Western Regional, Weddin and Wellington. Geographically, Centroc covers 64,000 square kilometres.

The Board is made up of Mayors, elected representatives and General Managers from across the region and serves its communities through a combination of advocacy and improved local government service delivery including information sharing, aggregated purchasing and project development.

Telecommunications and broadband in particular are the second highest priority in the region, in terms of infrastructure provision, where the current priorities identified in the 2007/2008 Centroc Board Management Plan for the Central NSW region are:
- The development of the Bells Line of Expressway
- Metro-comparable broadband services
- Regional environmental sustainability
- Health services
- Transport Infrastructure
- Water supply and management

TELECOMMUNICATIONS' PROJECT OVERVIEW

The Telecommunications Project's objective is to secure funding and government commitment to the provision of long-term regional telecommunications' infrastructure, products and services that will ensure the continued viability of Central NSW as a dynamic region capable of competing on the world stage.

Centroc has three areas of concern regarding telecommunications' service delivery where each sector impacts on the other. These are:
- Broadband delivery
- Mobile phone coverage
- Skills shortages in delivering telecommunications' service delivery

Please find attached our summary document on Centroc's efforts to deliver broadband to the region. We have included a regional map to show what we believe is required to deliver 100% broadband to the region where terrestrial solutions are the preference and satellite used to service those areas where we believed the business case could not support terrestrial services.

We submit to you that the current programming under the Federal Broadband Connect Program does not deliver medium to long term metro-comparability and provide our argument accordingly.

There are also other contributing factors to the delivery of broadband in Central NSW including the Universal Service Obligation, de-averaging, the regulatory environment and future funding opportunities federally. These are all discussed.

Finally, Local Government itself has specific concerns regarding broadband based on its experience in regional and rural NSW. For example, the way our towns are planned where industrial areas are often outside the radius of current ADSL through exchanges in urban communities is of concern.

AN OVERVIEW OF OUR CONCERNS REGARDING BROADBAND SERVICES

Centroc is concerned about the inhibiting effects to development in the region from the very poor levels of broadband both on offer currently in Central NSW and to be offered under the Federal Broadband Connect program.

Last year Centroc conducted an audit of broadband services in the region to ascertain the level of need to deliver metro-comparable and scalable broadband to every service in the 13 local government areas of Centroc. Two of these areas, the Mid Western Regional Council and the Cabonne Council areas have been identified by the NSW Department of Commerce as being black spot zones for broadband service coverage.

This audit information was provided to the Federal Government under the Broadband Connect Program with a view to funding terrestrial services and where the business case for this was too poor, to deliver satellite services.

> It is Centroc's estimate that approximately $78m would need to be spent in the region to deliver 100% metro-comparable broadband services.

In June of this year the Prime Minister, Mr John Howard, announced that the OPEL consortium had been awarded the contract to deliver regional broadband services under the Broadband Connect Program.

> Centroc has concerns regarding the OPEL program to be delivered regionally under the Broadband Connect Program. Our concern is that while any improvements are a good thing, the OPEL solution will deliver only short to medium term improvements. In this bandwidth hungry region with an exponentially growing appetite for broadband services, the WiMax radio solution on offer using public frequency and duplicating the Telstra NextG network has significant problems in terms of scalability in the medium to longer term.

Further, being a public frequency radio solution, its current mapping makes assumptions about the topography and coverage that members of our community find doubtful.

THE SERVICE DELIVERY GAP FOR BROADBAND IN THE CENTRAL WEST

We live in an age where the ability to successfully run a business, learn skills, receive an education, provide services and have access to the up-to-the-minute advances in health care is increasingly dependent on access to the latest in internet technology.

Yet we live in a region where the standard of internet access and speed falls well short of that which metropolitan residents take for granted. Centroc was prompted to act because of this inequity and the fact that internet technology and access must be improved if the region and its residents are to prosper.

Cabonne and MidWestern Regional Councils have been identified by the NSW Department of Commerce as "black spot zones" for broadband. A study funded by Centroc and the Central West Regional Development Board (CWRDB) found that in Orange alone 4600 premises, more than a quarter of all properties, did not have broadband access. This technology gap is repeated right across the Centroc region, which covers 64,000km2 and is home to 220,000 people.

Centroc recognised that without a full suite of broadband and associated internet access products across the region, there will be significant drawbacks to the region's ability to progress.

These drawbacks can be broken down into five key areas:
- educational opportunities
- business development
- psychological impact
- the inability to communicate effectively
- lifestyle expectations

Education
Educational opportunities will be limited by the unavailability of access to online courses. External students, those studying by distance education, are disadvantaged. Access to information for research requires broadband access speed, which can carry video conferencing over the web.

The average size of most files on the web that these students would use is 2MB though this is increasing as the standard expectations for file sizes increases. Using a dial-up connection it would take four minutes and 22 seconds to down load that file. Using the latest ADSL technology that time would be cut down to just eight seconds. To download 50MB files, which would include Java or Adobe PDF Reader it would take 129 minutes on a dial-up connection. With ADSL 2+ a 50MB download would take two and half minutes.

Business
Business development, both new and existing ventures, will be influenced by the availability, or the lack of, internet technology. High speed broadband is crucial to run a business at international standards with the ability to conduct online business, including finance, purchasing, access to up-to-date commodity prices and video
conferencing.

Without access to the latest internet technology businesses in the region will lose competitive advantage. This loss could force businesses to relocate to centres with better internet access standards. Sub standard access would also limit the region's ability to attract new business. Health and medical services rely heavily on internet access.

Psychological Impact

Without improvements to the region's internet services there will be a psychological impact with the perception the rest of the world is using technology we cannot access. There will be a feeling of being left behind. There will also be inequities within the region where some will have access to broadband internet and others will not.

Inability to Communicate

An inability to communicate effectively will slow the development of good governance, regional development, shared experiences covering geographic distance and access to national and world markets. It is recognised that community activities can benefit from broader participation in special interest groups such as Landcare, which is an international organisation. Also, many projects these days are driven by net-based operating systems.

Lifestyle Expectations

Poor access to the internet will have implications for population relocation. Unless access is improved sea-changers will be deterred from coming to the Central West.

Please see over for some press clipping relating to broadband for the region. At your request the media file for broadband is available.

$78m to get broadband

Centroc makes submission to Federal Government

Councils make bid for broadband funding

Fact file

End 'nightmare' connection

$78m broadband rollout for Central West.

Broadband upgrade call

Howard asked to come on-line with cash

Broadband call from our mayor

Council broadband push

FORUM ON MONDAY

By GREG McFARLAND

Support for broadband growth

CENTROC AND THE BROADBAND CONNECT PROGRAM

A summary of the submission under the Broadband Connect Program forms an attachment. The following provides a very brief overview of Centroc's activities under Broadband Connect, where having conducted an audit of the region, we lodged a submission to the Federal Government for $78m.

Brief History of the Federal Funding Program - "Connect Australia"

Connect Australia is a fund derived from some of the proceeds of the sale of Telstra. Broadband Connect is one of the programs under that umbrella. Expressions of Interest (EOI) were requested June 2006 and Centroc submitted an EOI. Centroc then submitted an application with Non Applicant status on 19 December 2006, under the Broadband Connect Scheme.

The *Department of Communications, Information, Technology and the Arts (DCITA) Guidelines* responded to the needs of the Central West in focus and intent. They included:
- wholesale access
- price and performance to be metro comparable,
- a recognised development path,
- organisational skill set required to sustain the network,
- financial presence sufficient to sustain long term outcomes
- 100 per cent coverage of premises

Under the DCITA guidelines, cooperation from Carriers was needed.

The Centroc Inventory of Broadband Capacity and Need in Central NSW

The inventory included a review of the number of services currently able to access broadband and the identification of those others that could not access broadband.

The number of premises beyond exchange transmission reach had to be determined.

Determine Needs

The need was baseline metro comparable in price and service. Voice Over Internet Protocol was seen as a "must have". ADSL2+ was seen as a requirement for business and a near future need for domestic consumers. Business Parks saw ADSL2+ as a must have now.

Farming communities saw download speeds capable of Virus Software downloads as critical.

The Impacts of Geography and Teledensity

Topography has a major impact on the cost effectiveness of radio solutions. The percentage of premises on long lines from rural exchanges changed the viability of the proposal.

Due to the very low numbers in population centres in the some areas, an upgrade of some rural exchanges, including the removal of pair gain systems, was not a financially sensible option.

The Solution Defined

The objective was to meet the criteria of 100 per cent coverage.
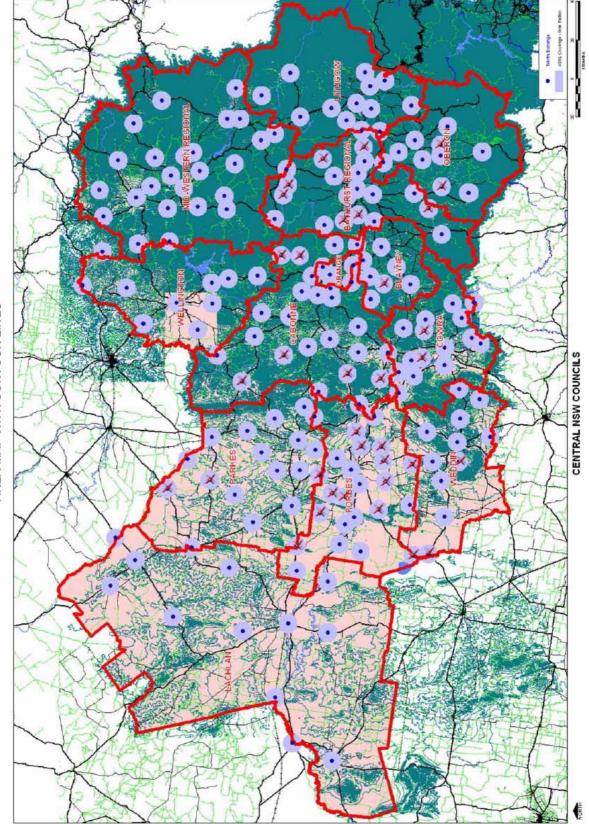
Partner Selection

For the terrestrial network, Telstra was the only choice for a provider delivering end to end remediation work. They met the DCITA guidelines selection criteria in all respects. Australian Private Networks (IP Star) provided a similar skill set and met all the DCITA requirements.

Cost: Projected and Actual

The Telstra component is what is required and we are confident in a cost versus outcome set of metrics. IP Star's component will vary downwards considerably dependent on the uptake of individuals to the program and the fact that we do not know what percentage of rural and remote premises have taken satellite already under HiBIS (Higher Bandwidth Incentive Scheme) and subsequently programs such as Broadband Guarantee and *Broadband Now* or will upgrade in the near future.

Centroc assumed a 100% satellite take-up knowing that it was more likely to be in the region of 30% plus on the satellite component. The satellite take-up will reduce the figure to approximately $12M.

The following page provides contour mapping of the region to show terrestrial delivery where those areas not around exchanges will receive satellite coverage. Exchanges marked with a cross were deemed unviable for upgrade as they had less than 18 services operating from them.

AREA MAP WITH CONTOUR LINES

CENTRAL NSW COUNCILS

OPEL ANNOUNCEMENT

An announcement was made by the Prime Minister, Mr John Howard, in Goulburn on Monday 18 June to the effect that the OPEL, Optus and Elders, consortium has won the bid to deliver broadband to the nation under the Broadband Connect Program.

The Optus and Elders joint venture, OPEL Networks Pty Ltd (OPEL), has secured $958 million in funding from the Australian Government. This comprises $600 million from the previously announced Broadband Connect Infrastructure Program and an additional $358 million in funding to further extend high-speed affordable broadband services to rural and regional Australians.

OPEL will initially deliver wireless broadband speeds of up to 6 megabits per second (Mbps) rising to 12 Mbps by 2009 using an internationally deployed broadband wireless technology appropriately designed for Australian conditions. Actual speeds will vary due to various factors such as distance from the base station, selected service, customer equipment and general internet traffic. Broadband delivered by ADSL2+ will have speeds of up to 20 Mbps.

Through OPEL, Optus and Elders will contribute $917 million towards the project through upgraded infrastructure, cash and in kind contributions. OPEL will now commence negotiations with Government to finalise the commercial agreement. The Government requires the network to be built by 30 June 2009.
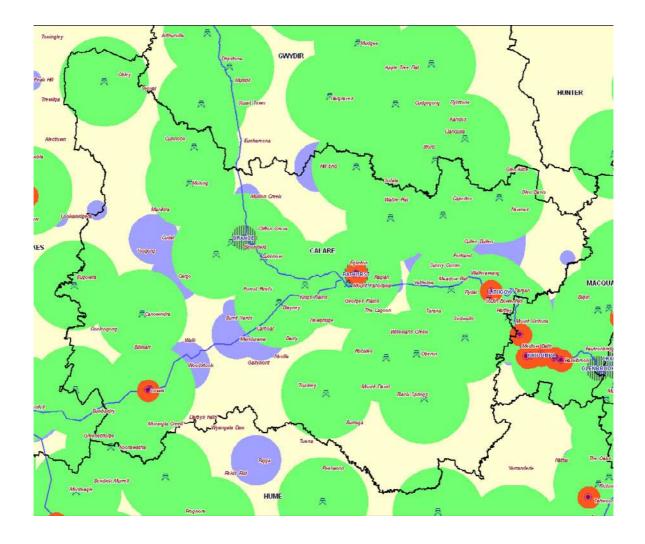

About WiMax
Under the OPEL program for broadband delivery in regional Australia a WiMax radio service is the primary deployment for Central NSW. Centroc has pursued more detailed information regarding the number of towers and their location.

Feedback from discussion with coalition Federal members and from a presentation by OPEL on 22 September, suggests that they are confident that the service will be metro-comparable. Reports in the Sydney Morning Herald and Australian Financial Review express reservations, particularly about the market share (5%) this service type has.

Concerns have been expressed about both the public frequency and the reliability of the service. In terms of public frequency, this bandwidth is accessible to anyone wishing to use it including the producers of home appliances. For example in Bathurst 16 July 2007, members of the public including industry service providers suggested that appliances such garage door openers and microwaves will affect a service using public bandwidth.

From the maps available which do not account for topography or provide a key to explain differing service levels, the coverage for the region is represented on the map on the next page, where the green sectors are delivered by WiMax:

Centroc policy is that it welcomes any upgrade to broadband but based on its investigations believes that the OPEL solution will, at best, be a short term solution with possible problems associated with the nature of the radio frequency. Medium and long term metro-comparability remains an issue for Centroc under the OPEL solution.

REGULATORY ENVIRONMENT

It is fair to say that there appears to be tension between the Federal Government and Telstra regarding the future regulatory and investment environment. Telstra is currently hesitant to invest whilst they are unsure of the access that they are going to be required, under legislation, to provide their competitors.

Three examples of how this environment is currently working are broadband enablement, the CDMA Mobile phone network and telephone calls which are sold through other carriers.

Optus currently is able to sell mobile phones that operate on the Telstra CDMA network. In essence, Optus buys time on the Telstra CDMA network that it sells to its customers. In the case of voice calls, other carriers, Optus, AAPT, Kooee for example are able to sell and bill customers using the local Telstra network having purchased those calls at wholesale rates from Telstra Wholesale which is separate division within Telstra. Telstra's position on future investment

appears to be that they do not want to invest in technology and then be mandated to supply access to their competitors. This issue is highly relevant when you consider the current plans for the new 3G mobile network. Telstra does not intend to allow other carriers access to its network.

On other newer technologies, it is understood that some of the newer higher speed internet devices to be placed in the network will be treated similarly. That is that other internet providers will not be able to use that technology for their customers. This includes extender boxes.

Exchanges throughout Central NSW are broadband enabled but Telstra have not "flicked the switch" as they claim the regulatory environment will mean they will lose money by having to wholesale broadband below cost.

This affects a significant number of exchanges around the region. An example is the Mullamuddy exchange in the MidWestern Regional Council area where the community typically on smaller holdings with intensive industry or lifestyle blocks have worked with the local ISP as there are a considerable number of rural businesses including bed and breakfasts, vineyards, wineries as well as a rural GP all seeking broadband access to offer metro-comparability for their businesses.

> **It is Centroc's view that development in rural and regional Australia should not be retarded due to the Government dispute with Telstra.**

DE-AVERAGING

De-averaging is the reduction of metropolitan access charges to the network and a subsequent increase to regional access charges. The current charging is all telephone services Australia wide are charged at approximately $30.00 per month. This is the phone line rental and will affect all user's of terrestrial based broadband services in Central NSW

There is currently a proposal by the ACCC, supported by other telecommunications providers that the charges should reflect actual costs. The intention is that the telecommunications industry would be become a "user pays" environment and the cross subsidisation between city and country would reduce or cease. This would mean that country people would pay a much higher charge to access the telephone network including broadband access.

The issue referred to in several ways but most commonly as the ULL, is the unbundled local loop. The argument is often framed as one relating to access to internet service but is in fact access to the basic telephone service. The matter is still unresolved. There has been much talk between the Government and ACCC but as yet we do not have any guarantee of parity of access price between the city and country.

Centroc concerns relating to de-averaging are as follows:
- This price impost would affect our business community dramatically.
- Lack of price parity will stop us attracting business to our areas.
- Decisions are very near and need immediate action.

USO - UNIVERSAL SERVICE OBLIGATION

The Universal Service Obligation still continues to be debated between the Government and Telstra. The USO is a fund that covers the cost of community service functions that are obviously not profitable but are essential. The amount of money allocated to USO is set by the Government and has been constantly reducing over the last few years.

Payphones is a classic case in point. There have been recent incidents of the removal of payphones in areas where their usage is low. Low usage is not necessarily an indication that the service offered is not critical to some members of the community.

In an extremely competitive industry it is unrealistic to expect a privatised Telstra to continue to offer services that do not satisfy shareholder requirements. The outcomes have become obvious with Telstra continuing to reduce service to match the reduced funding.

Broadband infrastructure in rural and regional Australia is consequently at risk.

Regional Service Levels

Currently there is a "Local Presence Plan" which the Government is using to drive Telstra to maintain its presence in regional Australia. This paper is the subject of continued debate between the Minister and Telstra.

Direct local presence appears to be reducing in two ways.

Firstly, there is a reduction of Technical Field Staff currently happening in Central NSW. This has been occurring for some time. In some instances the reduction will not affect the customer. This particularly applies to exchange maintenance staff where the automated equipment can be maintained remotely. However, the field staff that repair and maintain the external equipment, including that in the customer premises are still needed. To overcome the reduction in field staff, an announcement was made some time ago of traineeships through Skilled Engineering; to date the take-up of these traineeships does not appear to have been actioned in Central NSW.

Secondly, there is a shift to using Telstra Franchisees as the points of presence for Telstra contact. These are the shops that are in Orange, Bathurst and Mudgee with several smaller ones placed inside existing businesses. Unfortunately, these shops are only geared to making sales and are often not in a position to address consumer service or billing issues. They are sales outlets for Mobile Phones and some internet products. These dealers are not remunerated for addressing service or billing enquiries and hence their focus is normally on sales only.

At community forums in the region relating to broadband provision commentary regarding support for broadband services concern has been expressed regarding ensuring there are personnel in the region to maintain the infrastructure.

To summarise our concerns regarding skills and service personnel shortages:
- Service response are one of the most critical issues for regional business
- Billing issues can take considerable time on the phone to resolve
- A local solution is an advantageous outcome for our community

Infrastructure Development

Under the USO, the infrastructure that should be provided needs to be capable of providing the emerging features that consumers are demanding. In particular Voice calls over the Internet, this

service unfortunately will not be possible on all technologies such as satellite services and it is inevitable that not all customers will be able to access it.

However it is possible for the majority of customers to have this significant cost saving product with the correct networks being built. The internet services that are planned will need higher speeds than are currently available for current normal household use. The newer broadband services such as ADSL 2 and ADSL 4 need to be planned in any network selection.

The "greenfield" building developments in local government areas need to have infrastructure which will enable the above technologies to be available from the day the first new home owner or business moves in. Councils recognise the need to give consideration to working closely with developers to ensure that a minimum standard exists in their local government area. Council standards, which may take the form of a covenant applying to future development, will ensure capacity into the future. Instigating a minimum development standard may make it easier to sell any infrastructure development proposals.

Business growth and satisfaction sustains population growth and stability. Attracting and keeping business revolves around having the same infrastructure access as our city competitors. To invest regionally, business needs certainty regarding long term metro-comparability. Consequently, Centroc has recurrently involved itself with business/industrial park needs.

The provision of broadband services is critical for the region as a place to work study and research. This is of particular concern for business in the region where the provision of broadband is a requirement not only from a lifestyle perspective, but to ensure they remain competitive and more recently, just "do business." While business in general requires significant upgrades to broadband infrastructure, industrial land with broadband capacity offer an area of particular need.

On 18 June, the Federal Government announced the OPEL solution to provide national broadband coverage which includes a number of vehicles to improve broadband delivery for the region.

While the detail of the proposed delivery methods are yet to be finalised, areas outside a 2km radius zone from existing exchanges will typically be using a satellite or a WiMax radio solution to provide broadband services. Neither is regarded by Centroc as offering medium to long term metro-comparability.

Anecdotally, General Managers in the region report that developers of industrial land raise broadband connectivity as an issue for locational preference. While fibre to the node has been identified as a minimum standard, fibre to the kerb is the best solution for land zoned industrial.

Demand Aggregation and Pricing
Informing the USO is demand aggregation with corollary pricing. Demand Aggregation is a term used by the Federal and State Government and has been a way of attempting to scope the potential usage needs of the community for broadband. The State Government Department of Commerce has suggested that the results have been very patchy and mixed.

The focus seemed to be almost exclusively on the consumer market. Success was deemed to be a sufficient number of expressions of interest to justify an approach for Federal Funding, principally under the HiBIS. The approach to pricing parity appears to be to encourage

competition using Federal Government grants to build competitive networks and hence drive down the price of broadband. Evidence of price movement due to this scheme was anecdotal.

FUNDING CONSIDERATIONS

With the sale of Telstra, monies have been put aside for the future development of telecommunication in regional Australia.

There are two issues here. Firstly, that private industry must compete for federal funding in a constantly changing funding environment. Secondly, that communities must compete with each other for funding of public programming.

Regarding private sector funding, while the Broadband Connect Program may well prove to be a case in point for non-delivery, anecdotal feedback from local ISPs suggests that the hurdles to undertake to access funding are onerous. Many have walked away from the process. For example under the current *Broadband Now* program the broadband services offered under HiBIS appear to have been migrated to the new program.

The two primary ISPs in the Mid Western local government area - Winsoft and Highway Internet Services - are not listed as providing metro-comparable internet services under the *Broadband Now* Program. Highway suggests that the HiBIS scheme was too hard and they have not investigated the more recent iterations.

Consequently, members of the Mid Western community logging onto the current scheme for federally funded *Broadband Now* program receive a list of suggested ISPs that offer metro comparability where none of them are the two main ISPs. This may well impact on local businesses. Interestingly, two of the ISPs listed as offering NON-metro-comparable services are Optus and Elders which appears remarkable given the near billion dollar funding they have received. If nothing else, this all adds to the confusion being experienced under the current funding regime.

The second issue is that of future infrastructure and other funding with monies set aside by the Federal Government from proceeds from the Telstra sale. There are no guidelines for this programming but all remaining the same as under the current regime, programming will be competitive relying on communities positioning themselves against other regions to best serve their population.

CONCLUSION

Centroc is deeply concerned about the provision of metro-comparable broadband service delivery in the region. Consequently it has funded an audit of the region and provided the information to the Federal Government under the Broadband Connect Program.

The audit revealed a significant gap in service delivery in the region where communities as large as Orange had over 4600 under serviced for broadband.

Centroc applauded the guidelines provided by the Federal Government for metro-comparable, scalable and wholesale-able broadband delivery for regional Australia.

It is Centroc's view that terrestrial solutions are the best option for metro-comparability and scalability in a community with an ever increasing appetitive for broadband capacity. Where these services cannot be delivered with a reasonable business case, it is Centroc's view that satellite services provide the next best option.

Centroc applauds any improvements for broadband in the region but has reservations regarding the radio solution on public bandwidth offering coverage for broadband under the OPEL program.

Centroc also notes that the regulatory environment, the USO and future funding environments are adversely affecting the delivery of broadband in the region now and will continue to do so into the future if changes are not made.

Centroc

Connect Australia

Broadband Connect Programme

Summary of submission

Summary of submission

On the 18th of December, Centroc lodged a submission under the Broadband Connect Programme. The submission is Centroc's objective view on what would be the best way to deliver 100% Broadband to the region under the Federally funded Broadband Connect programme. This submission in its entirety is available upon your request.

Central NSW Councils (Centroc) has funded an audit of the region identifying gaps in broadband delivery. The audit has revealed that the number of under-serviced premises in the region varies from the figures provided by the Department of Communications Information Technology and the Arts. For example, in the case of Orange, this variation is significant where Centroc has identified over 4600 under-services premises.

Centroc offers a solution to the broadband needs of the region through Memoranda of Understanding (MOU) by partnering with carriers who meet the Broadband Connect Programme Guideline criteria. These carriers are IPStar and Tesltra. At the time of writing, MOUs are in a mature stage with both Telstra and IPstar having provide letters ntent and taken part in the Broadband Connect Programme.

The totality of the funding sought is $31,960,000 for terrestrial solutions and $46,382,000 for the satellite solution. A total of $78,342,000 is requested to deliver 100% broadband to the region. Given that the satellite component relies on individual householders taking advantage of the programme, Centroc anticipates this figure will be reduced significantly. Consultation suggest a figure of 50% uptake is optimistic.

Applicant Status

Centroc submitted applications under the Broadband Connect Programme in three ways:

1. As a non-applicant submission to identify the elements within the IP Star Australian Private Networks and Telstra submissions.
2. As part of the IP Star Australian Private Networks submission with agreed elements via a Memorandum of Understanding.
3. As part of the Telstra submission with agreed elements via a Memorandum of Understanding.

It should be noted that the Centroc submission is the only one which contained the comprehensive, modular and costed audit of the region.

The Telecommunications Broadband Connect Project

After discussion with the Central West Regional Development Board (CWRDB), part of the NSW Department of State and Regional Development (DSRD), a decision was made to engage a consultant with appropriate communications and local knowledge.

The role was partially funded by a grant from the CWRDB.

The principal objective was to determine the needs of local business and residential communities for broadband services now and into the foreseeable future. The emphasis has been to ensure that local communications facilities encourage business development in the region and that the children and tertiary students of the region have the same access to educational internet services as is available in metropolitan areas.

In June 2006, Centroc submitted an Expression of Interest to the Department of Communications, Information Technology and the Arts (DCITA) as a precursor to this submission. Given that the Broadband Connect Programme has been targeted at non-metropolitan areas, the Centroc submission offers a solution that encompasses a significant proportion of regional Australia. Further, the region's approach has been to provide an "all of a piece" solution offering a 100% broadband coverage for the services operating in the area.

The intention of this project has been to ensure the focus remained on the stated objectives of Federal Government policy. Firstly, to ensure "Future Proofing" for local communities and secondly to provide a communications environment which would ensure competition now; and into the future. The technology choices adopted guarantee that pricing for telecommunications services provided parity with city providers.

Wholesale access is particularly important to the Centroc councils as there are several local Internet Service Providers (ISPs) who need to be able to survive and prosper using any infrastructure proposed. These ISPs often offer Information Technology (IT) support to many local businesses and are needed for the financial well being of the business community. An environment that does not allow any ISP to compete has not been considered.

This philosophy has remained in the selection of a satellite provider (IP Star Australian Private Networks). This carrier offers wholesale access for local ISPs and already operates in the area.

Centroc is committed to the principle that any expenditure must result in local communities gaining access to networks that have an internationally accepted standard, a proven development plan and will keep pace with metropolitan delivery in both price and performance.

The core principals still apply for "future proofing" and "open access" for all ISPs.

The audit of broadband undertaken by Centroc has revealed that the expenditure includes reconditioning the copper access network. The removal of "blockers" such as pair gain systems and other network "chokes" will constitute a significant portion of expenditure. It appears that all of the local government areas have sufficient fibre optic backbone to supply current and future needs.

It is evident due to the diverse tele-density, that one technology will not suffice across our region. In areas of reasonable tele-density the ADSL (and defined developments) provides the service which is most "metro comparable". This comparison includes aspects of wholesale access, pricing, and reliability and future speed developments.

To derive these benefits the obvious partner choice has been Telstra due to their network control and ownership as well as the regulatory environment. It was partially for this reason that Centroc pursued a Memorandum of Understanding (MOU) with Telstra. Further, to meet the terms and conditions in the Broadband Connect Guidelines, Telstra displays all of the criteria in terms of financial strength and technical expertise both now and into the future.

As mentioned previously, the variation in tele-density across the Centroc region has meant that a second technology partner and solution was required. After considerable review and considering the varying topography of the region it was decided that satellite services would best meet the lower tele-density needs.

Again, with the core principles of price, speed options and wholesale access Centroc has partnered with an IP Star distributor, Australian Private Networks. Again a MOU is being developed with this carrier.

The methodology of the audit has been to start from an exchange inventory and determine if the exchange was ADSL capable. The survey then examined the network capability and identified pair gain systems and/or other impediments to providing broadband access. A radial distance of 5 kilometres from the exchange was used to ensure that the reach remained within specification of ADSL transmission.

The backbone capacity of the fibre connection was also reviewed to ensure that the backhaul capability existed.

These inventories were conducted with the full co-operation of Telstra. The costings were agreed with senior Telstra management and local Telstra Country Wide offices.

In areas where the cable runs made it impractical to consider ADSL, the submission calls for a satellite solution using IP Star provided through their distributor- Australian Private Networks.

The terrestrial solution meets the core objectives. This service offers wholesale product and has a price point which matches the metropolitan mean price of circa $30.00 monthly. "Extender boxes" (Extel etc) have not been considered as these are proprietary and do not offer wholesale access.

Similarly, the Next G Mobile Network offered by Telstra, while attractive, did not have a wholesale product or match metropolitan broadband pricing and hence has not been considered in this proposal. Whilst the development path indicates speeds of 40 megabits it is anticipated that the higher bandwidth services will lose transmission distance. They have therefore not been regarded as a long term solution.

Much of the Centroc region is, from a telecommunications' commercial perspective, financially attractive. However it is still not sufficiently attractive to spend money on network reconstruction without Federal Government assistance. There are still insufficient clients to justify commercial expenditure. These decisions are impacted by the regulatory environment which requires wholesale market participation. Obviously much of the area has sparse population coverage and hence the selection of technology will impact the future viability of any operator.

Centroc has partnered with carriers who will be able to provide, between them, 100% coverage of broadband supply to the local government areas. As a total solution, Centroc prefers not to have the region "cherry picked" based on the commercial priorities that may be given by some carriers. Individual Council areas support this view and have attached their letters of support. Some individual members have been approached by other carriers and while the organisation as a whole supports all efforts to bring broadband to the region, the Centroc submission is the preference of all members as it offers a total solution for its communities.

This proposal is "modular" where each local government area is individually presented in the attachments. Also, the technology is costed separately.

These carriers are able to demonstrate, via the MOU, that they will be able to operate their networks without on-going financial assistance after the Broadband Connect Programme is finalised and will continue to be scalable.

As part of Centroc's involvement in this programme, the councils within Centroc are proposing to discuss with the carriers (Telstra / Australian Private Networks) community forums where the advantages and functionality broadband presents will be promoted by the councils to local communities. Centroc is particularly keen to promote access to State and Federal Government agencies through this medium. This will be highlighted as a way to reduce the impacts (time and cost) of travel when dealing with all levels of government.

Cost-effectiveness and Commercial Contribution

The approach has been to expand the existing ADSL network to provide both a retail and wholesale component. The use of an already proven commercial network will not change the pricing and functionality offered and will ensure a metro-comparable service.

Further, building on the existing arrangements, as opposed to supplying a second radio network; reduces the negative impacts of lower consumer appeal, wholesale ability and a radio network's development potential. Centroc has taken this approach to ensure that

it does not submit a proposal that will result in "over build" and hence not be a cost effective solution.

Telstra is aware of the contribution required and has apparently agreed to this process separately with DCITA. Arrangements between Telstra and DCITA would be part of the existing Memorandum of Understanding struck between Centroc and Telstra; currently at a mature stage.

The MOUs are still under negotiation with both carriers and are anticipated in the near future.

The selection of IP Star, supplied through Australian Private Networks, responds to the requirement of a metro-comparable price and service at a cost effective rate. Satellite services answer this requirement in those parts of the Centroc region which have a low tele-density.

Upgrades to ADSL for many rural exchanges in the Centroc region are not cost effective. The rationale for exclusion of some exchanges is as follows.

In consultation with Telstra, Centroc has developed estimates of the number of services that would be reached with upgrades bringing ADSL to a 5km radius around each exchange. Where these numbers fall below an estimate of around 18, a satellite solution is viewed as more financially viable. This is based on the following assumptions:
• The cost of installing a satellite service being approximately $2800 plus GST.
• The cost of upgrading the smaller exchanges being approximately $50,000.

Exchanges falling into this category are listed as "nonviable" in the analysis. Some exchanges have been audited by Telstra and require servicing. This work is not programmed by Telstra, but where ADSL adds a benefit, these have been included. Exchanges falling into this category are included in the analysis.

Funds have not been included for exchanges already programmed for works by Telstra.

Centroc believes that the remaining under-serviced premises should have broadband delivered by satellite. Funds are sought for satellite coverage for all of the remaining premises in the region which are not being serviced by the terrestrial solution.

The total amount being requested by Centroc under this programme is as follows:
$31,960,000 for the terrestrial solution via Telstra
$46,382,000 for the satellite solution via IP Star via Australian
                        Private Networks
$78,342,000 in total.

While Centroc will work with carriers to promote the uptake of the Broadband Connect programme, it recognises that a significant number of households will not take up the opportunity. Some householders not on ADSL enabled exchanges have already taken advantage of the existing Hibis programme. Others will not take up the offer for other reasons. Consultation suggest a figure of 50% uptake is

optimistic. This will significantly reduce the monies requested from the Federal Government under this programme.

The following table summarises costs by local government area. It should be noted that both Mid Western Regional Council and Cabonne Council have been identified by the NSW Department of Commerce as being blackspot areas for broadband delivery.

Cost of broadband delivery to 100% of Services in Operation in the Centroc region by Local Government Area			
Local Government Area (LGA)	Cost of Terrestrial Upgrade (Telstra)	Cost of Satellite Upgrade	Total Cost Per LGA
Bathurst Regional	$6,320,000.00	$4,754,400.00	$11,074,400.00
Blayney	$1,410,000.00	$2,503,200.00	$3,913,200.00
Cabonne	$500,000.00	$10,715,600.00	$11,215,600.00
Cowra	$1,730,000.00	$2,886,800.00	$4,616,800.00
Forbes	$1,300,000.00	$2,262,400.00	$3,562,400.00
Lachlan	$770,000.00	$2,438,800.00	$3,208,800.00
Lithgow City	$3,770,000.00	$2,965,200.00	$6,735,200.00
Mid Western Regional	$3,070,000.00	$8,030,400.00	$11,100,400.00
Oberon	$1,440,000.00	$1,467,200.00	$2,907,200.00
Orange City	$7,600,000.00	$162,400.00	$7,762,400.00
Parkes	$2,240,000.00	$2,511,600.00	$4,751,600.00
Weddin	$480,000.00	$1,139,600.00	$1,619,600.00
Wellington	$1,330,000.00	$4,544,400.00	$5,874,400.00
Total	$31,960,000.00	$46,382,000.00	**$78,342,000.00**

Wide Coverage of Under-served Premises

A combination of terrestrial and satellite services will provide Centroc with 100% coverage.

There are a large number of under-served areas in the major regional centres such as Orange and Bathurst due to the large number of pair gain systems and remote integrated multiplexers which are under capacity.

The expansion in these towns has meant that the network has not kept pace with the new housing growth. This has been compounded by the rapid uptake of broadband in these new areas.

In areas outside the regional centres there are a large number of telephone exchanges that do not have ADSL available. The tele-density around these rural exchanges makes it not cost effective to deploy copper based ADSL due to distance limitations of the technology.

Therefore Centroc has opted for satellite services for premises off these exchanges. This will ensure that constituents in the region will have a practical option to access broadband regardless of the exchange capability and a considerably reduced infrastructure cost.

A final consideration in terms of coverage has been the degree to which householders take up of the offer of satellite services by IP Star through Australian Private Networks with funding from Federal Government. Here the terrestrial solution offers a future beyond the three year term of the programme where all householders around the exchange are able to access broadband. The satellite and other non-terrestrial solutions do not offer the same level of future-proofing, relying on householders installing the hardware under the programme to enable residences into the coming decade. Here the use of terrestrial solutions is again preferable.

High Quality Wholesale Broadband Services

The objective of this submission is to ensure that the existing ISPs in our area are not damaged as a result of the implementation of Broadband Connect and similarly that future carriers will be able to leverage against the improvements delivered under the current program. To this end Centroc has worked to provide a network rehabilitation plan that will expand opportunities for the community to access broadband services from all ISPs and carriers by ensuring that the proposal continues along the existing arrangement of wholesale of ADSL services on the core Telstra network. Centroc has also ensured that by driving a rehabilitation proposal the future of ULL (unbundled local loop – ie the cable from the telephone exchange to the premises) is assured where possible.

In Centroc exchange areas with a lower tele-density or premises out of ADSL distance specification, a satellite service (IP Star through Australian Private Networks) has been selected that currently wholesales it services to several ISPs in the region.

This wholesale arrangement will continue with the funding of the Broadband Connect Programme. The current pricing offered through these carriers is metro-comparable.

In terms of the sustainability of services, the scalabilty of infrastructure, the quality and robustness of the technology and other essential and desirable features called for by the funding entity, much of this is addressed under the Memoranda of Understanding.