

The Electronic Canary

Sustainability Solutions for Australian Teleservice Centres

Community TeleServices Australia, Inc

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Executive Summary

The Electronic Canary: Sustainability Solutions for Australian Teleservice Centres

Summary of main findings

This report has been prepared by Community TeleServices Australia Inc (CTSA) for the Department of Communications, Information Technology and the Arts. The accompanying working papers have been prepared by a range of practitioners with wide experience in teleservice centre operation and administration, both within Australia and overseas.

A strong impetus to examine the role of the teleservice centres has come from:

- the Regional Telecommunications Inquiry (RTI) Report¹. In it, Recommendation 5.5 of stated that *'All tiers of government should work together to support teleservice centres in regional, rural and remote Australia, and to enable these important community facilities to remain viable'* and
- *the fact the while 600+ teleservice centres have been have been opened since the early 1990's with only 75% of these remaining today, leaving unanswered until now, the questions of why such a large number have closed and what has to be done immediately to ensure the remaining 75% continue to operate and thrive*

The Australian Government has accepted the Inquiry recommendation, and has committed to work with the Online Council on strategies to maintain the viability of teleservice centres. The Online Council has recognised that these centres provide social and economic benefits to rural communities that extend well beyond online services and affordable ICT training.

This report has been commissioned to consider options for achieving this goal, and to suggest how all tiers of government can contribute to and benefit from rural teleservice centres. There is an urgent need to consider their sustainability in 2004.

Because of the range of services they provide, teleservice centres can act as a metaphorical canary that indicates the overall health of the community. If the canary dies then Governments can be assured the community is in trouble and in danger of further isolation and potential collapse. Without access to basic services, a small community can be left with a standard of living more like that of a third world country.

The overall economic, social and environmental health of our rural communities is one of the critical issues facing Australia. This paper outlines the role of teleservice centres as a strategic national resource, and shows how they fit into sensible solutions. Each level of community and government can contribute to rural sustainability by supporting teleservice centres to achieve triple bottom line rewards. It is no longer practical to consider social, economic and environmental goals in isolation, as they are all interrelated. All now have correlates with information technology and the patterns we choose for information sharing and decision making. This report looks at teleservice centre sustainability from a triple bottom line and all of government perspective. As discussed in Appendix 3, some aspects of current policy settings have the potential to actually exacerbate the digital divide in rural Australia. What is required is a unified policy approach to achieving effective use and rural development via new communications technologies.

Australia is currently in a position to achieve world best outcomes and practice in its use of ICTs, partly because of the ground work laid by programs such as Networking the Nation and the Rural Transaction Centres. While international attention is awarded to projects for creating digital communities, Australia has no plans for implementing the second stage of digital development². This runs the risk of complacency.

Substantial progress has been made towards creating minimal communication infrastructure in non-metro Australia. This task remains incomplete, and is unlikely to reach its full potential without an application layer that supports effective use at a local level. There is a danger of applying a double standard to teleservice centres and other community based IP points of presence. This is the assumption that only the commercial sector is important in moving towards an information economy. Something is badly amiss in the policy context when senior bureaucrats comment that ‘the Minister isn’t interested in community’³

It would be a mistake to position teleservice centres, or digital communities, as high technology outposts of the extended welfare state.⁴ They are linked to creative expression but also to social innovation, and can be part of democracy by design through the cultivation of diversity, dialogue, and an informed citizenry. These are processes that are essential to government legitimacy, but also for adaptation to the changes that undoubtedly lie ahead.

It is apparent that the threats to Australian values and way of life are increasing, and that policy planning needs to take into account the necessity of rapid, responsive and community based communications and support. These are not features that can be outsourced, and the infrastructure and human networks that enables them cannot be summoned up overnight. The opportunity to act constructively and create a civic infrastructure is not likely to last. This report seeks to develop the argument for a cohesive approach from the federal government to support electronic capacity building throughout regional Australia.

This report outlines the elements of a national broadband extranet and secretariat. This physical and human infrastructure would allow a range of varied multipurpose centres to aggregate their functions. It would give them the interim support they need to seek long term corporate and government service delivery contracts, develop business skills, and cross-subsidise the forms of learning and civic engagement that can generate rural renewal and manage change

Part I of this report outlines the background of teleservice centres. It also identifies the factors that have contributed to their successful operation, and those which make it more likely that they will collapse. It discusses and extends on the set of success factors provided in the DCITA discussion paper. We use case studies to illustrate as much as possible, as these show the revenue raising

possibilities that are already in place, and how they contribute to teleservice centre sustainability. This map of factors corresponds roughly to the strengths and weaknesses of existing models, and the options for adaptation to ensure their continued existence.

In Part II we draw on the working papers and stakeholder research to discuss key issues for teleservice centre sustainability, with specific areas for further exploration. We also outline a range of future directions for the centres that would enhance their value to all levels of community and government. An overview of the relevant research supporting the concepts and recommendations in this report is provided in Appendix 4.

Part III of this report builds on the collective experiences of the CTSA and the stakeholders consulted to suggest specific recommendations for all levels of government. While there are many things that teleservice centres can do to improve their viability, these will be enhanced by the provision of suitable infrastructure and support. A key driver for this would be a commitment from government to make electronic government services available as part of a universal service delivery obligation.

This report discusses the abundant evidence leading to the key factors are for teleservice centre viability.

Key success factors include:

- Sufficient community commitment to having a centre
- Presence of a ‘social entrepreneur’ or local leader who understands triple bottom line benefits
- Being in an easily accessible location, where out of town tourists or backpackers can stop in
- Sufficient funding horizons to allow a centre to mature and find its role
- Good mechanisms for governance and management, i.e., not being held to ransom by vested interests
- Providing services for and about local interests and culture. i.e., a community newspaper or video hire, information about activities, etc.
- Co-locating with other services valued by the community, such as banking, learning, neighbourhood centres, or other business and/or cultural activities
- Being able to respond to changing needs, whether this be staffing, business process, or technologies
- Being part of a cluster of other regional centres as partners expands options
- Having workable business models and being able to tell if they are working
- Providing a multipurpose environment with social and economic programs as well as IT
- Being able to form partnerships at multiple levels: local, regional, state/territory, and national
- Developing agreed upon guidelines for sustainability, including being able to provide appropriate reporting and accountability to all stakeholders: the funding body, partners, and the community

- Being established as part of an existing network with an active Coordinated Support Unit provides a head start. Such centres are more able to enter into arrangements for delivering existing programs and services on a commission or fee for service basis.
- Having access to a State Support Unit also gives immediate access to a lobbying forum, new programs and services sourced on behalf of the network as a whole, quality control, training, cross fertilization of new ideas, marketing and collaborative learning to achieve best practice.
- Having face to face assistance from State Support Regional Coordinators
- Being able to make use of existing and available technologies, networks and resources

The experience collected from our experts confirms the list below as the reasons why so many teleservice centres have failed. These are the key issues that must be addressed if the government is to implement Recommendation 5.5 of the Regional Telecommunications Inquiry Report:

Indicators of likely failure for a teleservice centre include:

- Being a sole operator, not part of a network or cluster. This makes it harder to access learning, partnerships and support.
- Working in isolation from the local community, without a plan for enlisting local support
- Not having a sense of what sustainability means in the local and wider context
- Lack of ongoing funding for centres that are too small or too remote to become self-sufficient
- Time frames for funding that are too short (i.e., two years only) to allow sustainability to become secure
- Having access to online support only, without face to face contact and interaction
- Only providing one service, or not being able to respond flexibly to community needs
- Having too great a reliance on volunteers, or lack of staffing
- Lack of business skills and training, including marketing
- Lack of technical support, including maintenance
- Inaccessible or inappropriate co-location, i.e., having tourism services tucked away at the back of a school, out of sight.
- Lack of suitable partnerships that can reduce costs of accommodation, technology and equipment and shared staffing
- Opening hours and staff attendance appropriate to the centre's functions and community needs. I.e., a centre offering banking services would need to be open during hours convenient for both business people and out of town clients.
- Inappropriate duplication of facilities, such as competing provision of similar services in a small town
- Inadequate business planning or management skills
- Inability to formulate a working model for sustainability and test it

- Insufficient technologies or inadequate bandwidth for the purposes of the centre. I.e., increasingly, government and business transactions require higher bandwidth and ability to operate the latest software.
- Inadequate governance arrangements and/or accounting procedures

Depending on identified needs, teleservice centres may provide any of the following services:

communication services - the Internet, fax, email, videoconferencing and other online services and information;

computer services and applications – PCs, CDs, DVDs, web cameras, printers, scanners, digital cameras, other electronic equipment, all kinds of applications, spreadsheets and small business applications and tools;

resource services – technical support, desktop publishing, graphics applications, photocopying, laminating, secretarial and administrative support services;

education and training services – basic ICT training, accredited training courses, TAFE and vocational training, industry and business training (i.e. micro business sector);

government and citizenship services – for all tiers of government (at federal, state and local levels), including labour/work participation schemes such as Work for the Dole etc, telehealth and telelaw, participation and citizen engagement

social development services - support programs for youth, children, the aged and people with disabilities, Internet cafés;

research services – if collocated with a library or having access to skilled staff, assistance with database and library searches can be provided.

community development services – community newspapers, bulletins, tourist and heritage information, library services.

cultural services – training and support for production of local media content and dissemination of local information, promotions, heritage and tourism activities, also support for culinary (wine, specialty foods) and artistic endeavours through digital and other media.

environmental services– assistance with program delivery across regions, information dissemination, coordination of local consultations and briefs, support for community groups

business services – secretarial and other services, electronic commerce, information management and production of leaflets, web sites, etc.

Check list of issues for teleservice centre managers

Below is a set of issues that should be considered by the Management Committee and Manager of a Teleservice centre to maximise the Centres chances of remaining viable.

- Hold community meetings to determine what is needed
- Set resource and performance agreements with short term and yearly goals
- Develop a business plan with costings
- Meet with business providers to ascertain what their needs are, identify programs and services that are missing within their community and seek to address these.

- Liaise with other centres/central support to identify new programs and initiatives
- Consider innovative ways to recruit volunteers, for example: put on a morning tea to discuss what is involved, and follow up with a training session
- Identify potential partnerships at all levels: local, regional, state/territory, and national. For example, at a local level, some centres have good relations with their computer supplier, who provides low cost or free technical support. At a state level, it may be possible to help deliver environmental programs.

Conclusions and recommendations

Most teleservice centres play a pivotal role in maintaining and providing numerous programs and services that would not survive if they were required to operate on a stand alone basis for example:. If they must close their doors because they cannot be wholly dollar viable, the result will be a great loss to the community.

This report has described the problems that have led to more than 150 teleservice centres closing their doors. This has resulted in a net loss to their communities of many services, including banking, Centrelink, post compulsory education enrolment, support and training, provision of the community newspaper, email and internet at local call cost, tourism information, and much more. Innumerable examples have been presented in the accompanying working papers, and the appendices discuss in more detail related research that supports our conclusions and recommendations, as well as the policy context that has often limited the possibilities for teleservice centre viability.

The past 12 years can be thought of as Stage 1 of teleservice centres. We are now in Stage 2, and this requires a serious re-think. There is a need to shift from building to sustaining and maintaining. What is now needed is investment in the application layer to achieve the promise of the information economy and equitable, sustainable objectives for government electronic service delivery. To attract non-government partners the teleservice centres need permanent anchor tenants. This can only be achieved by governments taking a multi-layered approach.

If Recommendation 5.5 of the RTI is to be implemented, then sustainability of teleservice centres must be viewed from more than a narrow dollar for dollar basis. A triple bottom perspective recognises social, environmental and economic values and the ways they interact.

To date, government policy relating to teleservice centres remains fragmented. Much attention has been given to whole of government approaches, but national policy is often inconsistent or counter productive in its implementation. Some of the federal policy relating most closely to the future of teleservice centres is analysed in Appendix 3. There is not yet a cohesive or effective approach to regional and rural development, equitable national broadband infrastructure, or universal access to electronic government services. This report suggests a triple bottom line approach as a step towards overcoming these inadequacies to achieve multiple policy goals simultaneously.

Because the survival of teleservice centres is closely linked to the overall health and welfare of rural regions, a whole of government approach is vital. The following recommendations are offered for each level of government, along with principles that all levels of government need to accept before this issue can be successfully resolved.

Recommendations for the Online Council

It is vital that governments recognize teleservice centres as their point of presence in rural areas. To this end, the key recommendations of this report are:

- Provision of secretariat services at a national level, ideally through an existing not for profit organization, to facilitate an whole of government approach to electronic service delivery that includes teleservice centres as agents.
- A national broadband enabled extranet available to all teleservice centres, funded for a minimum of five years.
- A whole of government approach that places teleservice centres within a broader regional development perspective
- A working group from all levels of government, including local government, to implement measures to ensure teleservice centre viability.
- Commission a cost-audit analysis for all of government coordinated support and funding for telecentres, based on triple bottom line accounting procedures, consistent with international work on the Global Reporting Initiative.⁵

The Electronic Canary: Sustainability Solutions for Australian Teleservice centres

Good government is expensive, bad government is unaffordable.

Introduction

This report has been prepared by Community Teleservices Australia Inc (CTSA) for the Department of Communications, Information Technology and the Arts. It draws on and refers to the accompanying set of working papers⁶. These have been prepared by a range of practitioners with wide experience in teleservice centre operation and administration, both within Australia and overseas.

In addition to the working papers, this report draws on and should be seen as a complement to a number of other key documents already available to DCITA which reach similar conclusions, document related benefits and make mostly the same recommendations. These include the evaluation of Tasmanian community access centres⁷, the evaluation of the Rural Transaction Centres, and the reports prepared for the TAPRIC project.

A multi-purpose teleservice centre⁸ can fill the gaps that exist within many small rural communities. Many small towns cannot support what urban Australia assumes are basic services. These include a range of institutions and the people, buildings, services and infrastructures that support them: libraries, banks, post office, newspapers, educational opportunities, advanced telecommunications, employment agencies, tourist information centres, etc. Sometimes the gap is social or cultural, such as news about local events and services, or perhaps a pleasant place to have a coffee or rent a video. In other cases, it might be a gap in business support or equipment, such as a fax or photocopier. Rural doctors might miss access to colleagues for confirming a diagnosis, or need to look up a medical database.

For many and varied reasons people in regional, rural and especially remote Australia rely on their teleservice centres to fulfill many functions. In this way the teleservice centre can act as a metaphorical canary that indicates the overall health of the community. If the canary dies then Governments can be assured the community is in trouble and in danger of further isolation and potential collapse. Without access to basic services, a small community can be left with a standard of living more like that of a third world country.

The overall health of our rural communities is one of the critical issues facing Australia in 2004. This paper outlines the role of teleservice centres in this strategic issue, and shows how they fit into sensible solutions. Each level of community and government can contribute to rural sustainability by supporting teleservice centres to achieve triple bottom line rewards. It is no longer practical to consider social, economic and environmental goals in isolation, as they are all interrelated. All now have correlates with information technology and the patterns we choose for information sharing and decision making.

Teleservice centres have been a feature of Australian rural, regional and remote localities since the early 1990's, when funding was first made available through DPIE, followed by the Networking the Nation projects of the late 1990s. Western Australia, Queensland, Tasmania, and New South Wales now have central support funded by state governments. With the finalization of the NTN, RTC and Regional Solutions funding, many teleservice centres are finding their futures increasingly insecure.

The background paper from DCITA⁹ provides a comprehensive description of teleservice centres and multipurpose centres (SA) and outlines the current situation regarding their funding.

A strong impetus to examine the role of the teleservice centres has come from:

- the Regional Telecommunications Inquiry (RTI) Report¹⁰. In it, Recommendation 5.5 of stated that *'All tiers of government should work together to support teleservice centres in regional, rural and remote Australia, and to enable these important community facilities to remain viable' and*
- *the fact the while 600+ teleservice centres have been have been opened since the early 1990's, only 75% of these remain today.*

This report provides reasons why so many have closed and offers realistic suggestions for ensuring the remaining centres can continue to operate.

The Australian Government has accepted the Inquiry recommendation, and has committed to work with the Online Council on strategies to maintain the viability of teleservice centres. The Online Council has recognised that their role includes the provision of social and economic benefits to rural communities that extend well beyond provision of online services and affordable ICT training.

This report has been commissioned to consider options for achieving this goal, and to make suggestions on ways that all tiers of government can contribute to and benefit from rural teleservice centres and the urgent need for ongoing sustainability needs.

This is perhaps the first report that discusses the longer term viability of teleservice centres and their role as a strategic national resource. As such, it has been seen appropriate to take a whole of government approach.

A review of the extensive literature on teleservice centres reveals that there is already sufficient evidence of key factors for teleservice centre sustainability. Several state governments have adopted approaches which keep their teleservice centres functioning. What has been missing is leadership on the federal level to recognize that near enough is not good enough for rural Australia. The consequences are social, environmental and economic, but particularly political.

Australia's reality as geographically extensive but sparsely populated outside major centres makes a nationally coordinated and integrated strategy across all levels of government the only viable approach to many aspects of non-metropolitan development. This report assumes that full and equitable realization and maintenance of Australia's resources, both human and physical, is a key goal for governments.

The perspective developed here is a triple bottom line approach to sustainability. This report examines the social, economic and environmental dimensions of teleservice centre viability. Another key assumption of this report is that best practice in electronic communications and applications is vital to maintaining Australia's position in a globalised, information based world. This has implications for several dimensions of national sustainability, all of which require a whole of government approach. These include the ability to compete effectively with other countries in productivity and resource management, and to meet the challenges of dynamic, if not unstable, global economic and environmental conditions. For example, Australia's capacity for prevention, preparedness, response and recovery from disaster requires electronic points of presence and communication with sufficient density to function as a national network when required.

A third key assumption of this report is that achieving best practice in communication requires collaboration, coordination, innovation, and learning. These are all social processes. They are intensified in contexts that favour the development of social capital, and diminished when a unitary process or dimension is allowed to dominate. Thus, a narrow focus on one dimension of sustainability, typically short term economic returns, can inhibit the achievement of multiplying 'network effects'. Success in the information economy is characterized by responsive adaptation, and this has implications for governments, as well as teleservice centres.

The final assumption of this report is that best practice in electronic citizenship has correlates at all levels of government, not just federal. Governments today are obliged to seek sustainability and legitimation. This comes partly through their service delivery obligations and key performance indicators, which are increasingly developed in consultation with citizens. Governments now use electronic communications to engage as well as inform citizens at earlier stages of policy agenda setting, program design, delivery and evaluation. As the length of the policy cycle condenses, the margin for error decreases. Citizen and community participation is one way to facilitate government resilience, and the online world is an important channel for providing the necessary documentation and transparency that underpins excellence in electronic government. Government sustainability is endangered if rural and remote areas become an electronic 'terra nullius' or the ability of these communities to communicate both locally and across boundaries is compromised.

In preparing this report, members of the CTSA have consulted widely with stakeholders and interested parties. The background discussion paper from DCITA outlined some of the sustainability factors for teleservice centres that have been identified in Australia and other countries. The research for this report both confirms and develops these. History has shown the key components that effect ongoing sustainability. During the past decade a group of people with long term experience in the teleservice centres field have been identified and this report has drawn heavily on their experience and expertise. Further, the report draws on commentary and experiences from teleservice centres across Australia to develop specific recommendations. Stakeholders have included government agencies working with communities to manage environmental stress and resource protection, as well as business people who are working on community based development. The role of these centres in promoting social sustainability was a persistent thread in these consultations. The interweaving of social, economic and environmental benefit was another.

Part I of this report outlines the background of teleservice centres. It also identifies the factors that have contributed to their successful operation, and those which make it more likely that they will collapse. It discusses and extends on the set of success factors provided in the DCITA discussion paper. We use case studies to illustrate as much as possible, as these show the revenue raising possibilities that are already in place, and how they contribute to teleservice centre sustainability. This map of factors corresponds roughly to the strengths and weaknesses of existing models, and the options for adaptation to ensure their continued existence.

In Part II we draw on the working papers and stakeholder research to discuss key issues for teleservice centre sustainability, with specific areas for further exploration. We also outline a range of future directions for the centres that would enhance their value to all levels of community and government. An overview of the relevant research supporting the concepts and recommendations in this report is provided in Appendix 4.

Part III of this report builds on the collective experiences of the CTSA and the stakeholders consulted to suggest specific recommendations for all levels of government. We offer a check list for

teleservice centre managers and committees to consider in their search for sustainable means of funding. However, we go beyond this to suggest strategies for all levels of government, as teleservice centres are relevant to four tiers of community and governance. These levels: local, regional, state/territory and national, are a natural extension of a triple bottom line perspective. Our examples show that teleservice centres operate at multiple levels simultaneously. They also provide multiple benefits at all levels: economic, social and environmental. This is why teleservice centres need to be understood and supported as whole of government institutions providing whole of society outcomes. They are unique in offering locally based, but nationally (and internationally) connected but community directed electronic hubs.

The recommendations are offered in ways that can be implemented at all levels to support and benefit from the continued existence of teleservice centres. Each level has a role to play and a responsibility to accept. It is an incremental, adaptive learning approach, similar to that which has been found most successful for teleservice centres themselves. We offer realistic proposals that can assist governments to meet their obligations for truly equitable service delivery and derive additional advantages from the community-based development that enhanced teleservice centres are in many cases already providing. The authors outline the scope for additional partnerships of all kinds and at all levels of entry, with a range of mechanisms for funding and revenue generation. Drawing on the synergies that arise from network effects, it is clear that both formal and informal means for learning from both success and failure are essential. An integrated approach to teleservice centre viability, incorporating all four levels of sustainability development (community/regional, state and national) along with reflective mechanisms for reviewing and refining, can help these valuable centres to continue to expand their role as a valued strategic national resource.

The wider context of change and government policy impacting on teleservice centres provides a set of opportunities and threats. These complete the SWAT analysis aspect of this report, and Appendix 3 offers an overview of these. The recommendations for all levels of government need to be considered in view of this critical policy analysis. Because we take a holistic, all of government approach to teleservice centres, it is not feasible that they can either survive or achieve their full potential without adjustments to existing policies relating to them. We point to some areas where flexibility and responsiveness is needed.

Part I Teleservice centres: background and change

Comment was requested on a specific set of questions and while these have been answered, the report has sought to go further and clearly outline steps that need to be taken immediately to ensure this national asset continues to function. This is based on the information in the accompanying working papers, which are numbers and listed in Appendix 1. First we outline briefly the origins and history of teleservice centres, as background to understanding the current situation¹¹. Asking what has worked for teleservice centres is the other side of the coin of why so many have vanished.

Overview of teleservice centre history

Like any technology, teleservice centres are children of their time and place. Their history over the past 12-14 years indicates the tenacity and resourcefulness of their communities. Initially, telecentres did not provide Internet access. They were initiated to provide access to computers and training, and also whatever business or educational resources the community most needed. With the first Internet wave of the early 1990s, many more centres were funded to provide basic infrastructure and access to this new communication tool. Much funding was initially federal, as part of the Networking the Nation process. This was driven by the political need to compensate rural Australia for inadequate telephony services. With the partial privatisation of the national telephone carrier (Telstra), the imperative was to provide infrastructure. There was, and still is, little recognition of the interplay between locally determined use of new communications technologies and regional development. The NTN funding was not intended for producing content, paying staff or providing government services. Thus, sustainability was impeded from the start by teleservice centre funding arrangements.

Similarly, the Rural Transaction Centres were intended to fill a gap in government service provision. The multiple and cascading social benefits, which were documented in the evaluations of the RTCs stages 1 and 2, came as unexpected but welcome surprises. However, the RTCs are also now being defunded, and their sustainability is also at risk.

The federal government has worked on the assumption that its only responsibility is for infrastructure provision. This has blinded it to the need for ongoing support, both technical and human. Thus, proposals for a national support unit were rejected. Meanwhile, several states recognized the value of teleservice centres and funded them on a more or less continuing basis. These centres were able to expand, develop and form partnerships. These successes are detailed in the evaluation of the Tasmanian centres.

After more than 10 years of the Internet revolution, governments and communities have learned a lot. The remainder of this report details those lessons. It is now clear that information technology is a critical factor that can help rural towns to survive in the face of challenging circumstances. It is also clear that the multi-dimensional gap between metro and non-metro Australia is growing, and has the potential to undermine other national accomplishments.

Teleservice centres have a strong role to play in addressing the economic, social and environment issues of rural Australia. The lessons of their successes and failures point the way to their future sustainability, as the following sections reveal.

What Has History Has Taught Us?

There is abundant evidence of what the key factors are for teleservice centre viability. The accompanying Working Papers, particularly numbers 1, 4, 6, 10 and 12 provide additional background and examples of teleservice centre sustainability issues.

Key success factors include:

- Sufficient community commitment to having a centre
- Presence of a ‘social entrepreneur’ or local leader who understands triple bottom line benefits
- Being in an easily accessible location, where out of town tourists or backpackers can stop in
- Sufficient funding horizons to allow a centre to mature and find its role
- Good mechanisms for governance and management, i.e., not being held to ransom by vested interests
- Providing services for and about local interests and culture. i.e., a community newspaper or video hire, information about activities, etc.
- Co-locating with other services valued by the community, such as banking, learning, neighbourhood centres, or other business and/or cultural activities
- Being able to grow in response to changing needs, whether this be staffing, business process, or technologies
- Being part of a cluster of other regional centres as partners expands options
- Having workable business models and being able to tell if they are working
- Providing a multipurpose environment with social and economic programs as well as IT
- Being able to operate responsively and form partnerships at multiple levels: local, regional, state/territory, and national
- Developing agreed upon guidelines for sustainability, including being able to provide appropriate reporting and accountability to all levels: the funding body, partners, and the community
- Being established as part of an existing network with an active Coordinated Support Unit provides a head start, as they can generally enter into arrangements for delivering existing programs and services sourced by this body on a commission or fee for service basis as part of their start up plans
- Having access to a State Support Unit also gives immediate access to a lobbying forum, new programs and services sourced on behalf of the network as a whole, quality control, training, cross fertilization of new ideas, marketing and ..
- Having face to face assistance from State Support Regional Coordinators
- Being able to make use of existing and available technologies, networks and resources

The experience collected from our experts confirms the list below as the reasons why so many teleservice centres have failed. These are the key issues that must be addressed if the government is to implement Recommendation 5.5 of the Regional Telecommunications Inquiry Report:

Indicators of likely failure for a teleservice centre include:

- Being a sole operator, not part of a network or cluster. This makes it harder to access learning, partnerships and support.
- Working in isolation from the local community, without a plan for how to engage local support
- Not having a sense of what sustainability means in the local and wider context
- Lack of ongoing funding for centres that are too small or too remote for self-sufficiency
- Time frames for funding that are too short (i.e., two years only) to allow sustainability to become secure
- Having access to online support only, without face to face contact and interaction
- Only providing one service, or not being able to respond flexibly to community needs
- Having too great a reliance on volunteers, or lack of staffing
- Lack of business skills and training, including marketing
- Lack of technical support, including maintenance
- Inaccessible or inappropriate co-location, i.e., having tourism services tucked away at the back of a school, out of sight.
- Lack of suitable partnerships that can reduce costs of accommodation, technology and equipment and shared staffing
- Opening hours and staff attendance appropriate to the centre's functions and community needs. I.e., a centre offering banking services would need to be open during hours convenient for both business people and out of town clients.
- Inappropriate duplication of facilities, such as competing provision of similar services in a small town
- Inadequate business planning or management skills
- Inability to formulate a working model for sustainability and test it
- Insufficient technologies or inadequate bandwidth for the purposes of the centre. I.e., increasingly, government and business transactions require higher bandwidth and ability to operate the latest software.

Analysis of key success factors for teleservice centres

The above points summarise many common success and failure factors identified in our research and in consultation with Australian teleservice centres. A complementary list of success factors for Australian teleservice centre sustainability has been ably described in the DCITA discussion paper, which was based on the experiences of the Networking the Nation Program¹². We repeat those

factors below, and add to this list. We elaborate on each in relation to the supporting working papers, and then progress to a triple bottom line analysis, using current examples.

It is important to note the limitations of the DCITA discussion paper, as it discusses options and factors relevant only to the local community level. It does not acknowledge the role of the other three levels that teleservice centres operate on and provide benefits for: regional, state/territory, and national. To this could also be added the importance of networking on an international scale, as issues to do with agriculture, trade, community building, business skills, education, health and the environment, just to name a few key areas, do not have national borders. This is a logical implication of a multi-level, multi-purpose networked approach.

The basic success factors listed in the DCITA discussion paper were:

Location – It is important for a teleservice centre to be readily accessible, on a ground floor to maximize disabled access, and if possible co-located with other services. Many of the smaller communities cannot support more than one public online centre. Any form of duplication of technology services can overwhelm the community's ability to use either of them effectively.

Co-location is also important for creating a cohesive centre that can be 'branded' as a 'cultural and business centre' for the area. It can then become a hub for learning about new technologies, providing advanced services and networking about the kinds of content most sought in the area or region. Libraries are logical, but not the only, places to co-locate teleservice centres. The ability to facilitate cross-sectorial functions is particularly important for a triple bottom line perspective, which seeks to ground the social aspects of both learning and technical skills in community needs and interests.

Example: Ecotourist operators in the Northern Territory were paying city agencies to handle their bookings, but their agents couldn't handle all the questions or be flexible on booking plans. As a result some bookings were lost. They teamed up with local teleservice centres to provide Internet connectivity. This was their best option, because the cost of buying their own connections was too high. When the ecotourism operators went online, they were available to respond quickly to questions via email, or when necessary, phone. This allowed them to add a more personal element, and also to take on board comments and thus more readily adapt services to meet clients' needs. This enables them to convert more of the enquiries into bookings. They also saved on overheads by doing the bookings themselves. By having direct contact with their clients they were to achieve higher customer satisfaction and more repeat and referred bookings. This is a clear example of teleservice centres supporting outcomes with a strong learning dimension, as well as benefits on environmental, economic and social levels.

An integrated centre that becomes a focal point for the three tiers of government is also valuable for the efficiency and cost-effectiveness of each contributing layer of government. Many teleservice centres are already co-located with Centrelink or Australia Post services. This helps bring people through the door, and helps centres to create community identity.

Other forms of co-location have been successful, including video shops, printing and laminating, cafes, digital photography, training of all kinds, but especially information technology, and other community based services. These are detailed in the working papers, with the main lesson being the need to be responsive and open-ended in their approach to revenue raising. In small or very remote centres in particular, any service or training that is seen as useful to the community can add value. This can even include providing secretarial services to other businesses.

Co-location with online services can aggregate demand and infrastructure to meet that demand responsively. Costs are contained and purchasing can become more efficient. As a community becomes more comfortable and secure in its use of technology, other aspects of online use may branch off. For example, digital imaging within a teleservice centre might eventually become a viable business by itself, and start producing DVDs or CDs of local cultural content.

Teleservice centres can also benefit from a 'hub and spoke' approach, with a larger centre in a town connected to smaller outlying centres that have access to networked training and maintenance.

fee-for-service – Community members are already paying a fee for the services provided by the teleservice centre. These services are diverse, and can include desktop publishing, community newspapers, photocopying, self-directed training, etc.

Depending on identified needs, teleservice centres may provide any of the following services:

communication services - the Internet, fax, email, videoconferencing and other online services and information;

computer services and applications – PCs, CDs, DVDs, web cameras, printers, scanners, digital cameras, other electronic equipment, word processing applications, spreadsheets and small business applications and tools. There is a good opportunity to provide and offer training in open source software. Software and hardware costs are key concerns for teleservice centres. This would allow great cost savings to centres and could make quality software cheaper for the client base both inside and outside the centres.

resource services – technical support, desktop publishing, graphics applications, photocopying, laminating, secretarial and administrative support services;

education and training services – basic ICT training, accredited training courses, TAFE and vocational training, industry and business training (i.e. micro business sector);

government services – for all tiers of government (at federal, state and local levels), including labour/work participation schemes such as Work for the Dole etc, telehealth and telelaw;

social development services - support programs for youth, children, the aged and people with disabilities, Internet cafés;

research services – if collocated with a library or having access to skilled staff, assistance with database and library searches can be provided.

community development services – community newspapers, bulletins, tourist and heritage information, library services.

cultural services – training and support for production of local media content and dissemination of local information, promotions, heritage and tourism activities, also support for culinary (wine, specialty foods) and artistic endeavours through digital and other media.

environmental services– assistance with program delivery across regions, information dissemination, coordination of local consultations and briefs, support for community groups

business services – secretarial and other services, electronic commerce, information management and production of leaflets, web sites, etc.

Not all government agencies are paying a fee for their services in these centres. This means there are 'free riders' who benefit from other agencies that commit staff and infrastructure to servicing rural

clients. Only in WA has there been a transparent and well understood process for negotiating fee for service on a collective basis from federal government agencies. On a federal level, Centrelink seems to be the key provider of human resources for accessing its services in rural areas. The other key federal agency providing widely accessed services is the Australian Taxation Office, does not maintain offices or provide human assistance in non-metro areas. With the withdrawal of funding for the Rural Transaction Centres, federal government services may become less accessible. Redressing this imbalance through fee for service provisions, including a 'flag fall' for providing assistance, would go a long ways to facilitating the sustainability of teleservice centres.

This is an area where the state support unit has a key coordinating role. In Western Australia, Centrelink, the ATO, Westnet, Medicare, TAFE, Banks, etc, all pay the teleservice centres to provide their services. The State unit negotiates with these agencies as representatives of the whole network, and arranges fees and commissions. This can form a substantial part of the teleservice centre income.

These arrangements do not eliminate the need for specialized call centres available through free phone lines with agency staff available to answer complex queries. Rather, it provides a more sophisticated model that allows truly equivalent service delivery to all Australians. Urban dwellers have become used to simultaneous phone plus Internet access, often looking at a web site while speaking to staff. The complexity of government online means that it is not always easy to access the required documents without assistance.

The slower Internet speeds available in the bush, and the often prohibitive costs of a second phone line, mean that downloading complex documents is also often impractical. Increasingly, governments will need to use complex multi-media applications such as Flash, screen shots, etc to assist users with low levels of literacy or minimal English skills. These cannot be delivered over slow speed connections.¹³ Lines may drop out, doubling or tripling the costs of trying again. An aggregate government online centre that features fast access and the ability to burn CDs or print out pdf files, can add substantial value to rural users. And while the specialist staff of an agency can help with the details of policy or legal issues, it is still valuable to have someone on hand with computer skills to explain to novice users how to fill in an online form, or how to use a survey instrument, etc.

Management expertise and the role of volunteers – Volunteers have been important in the success of many teleservice centres. However, they have their limitations as these centres move from a fully funded to a self-sufficient status. The working papers, especially Peter Farr's, document the extensive business and management skills needed to run an access centres like a business. Expecting teleservice centres to operate indefinitely with volunteers and local 'champions' is a form of cost-shifting onto the community and individuals. It is not effective, efficient, reasonable or equitable.

Most of the successful centres have at least one paid staff. This is critical to their success. They can use paid staff to attract and train future 'local champions', but this has to be done in ways that will allow those with skills, energy and vision to eventually earn at least a partial income from their efforts. Complex programs such as those provided by Centrelink cannot be run by volunteers. For this reason, co-location of teleservice centres with Centrelink agencies is often sensible. If the centre is part of a network, then people in more remote locations that have access to a teleservice centre can be part of a coordinated approach to make skilled Centrelink staff available over the phone, while the client accesses the necessary forms, information, etc. electronically.

The business and administration skills they will require between them are¹⁴: Record keeping, financial management and office administration; the development and implementation of a business

plan; costing and marketing centre services; occupational health and safety issues; management of community participants; engaging with potential/actual clients and service provider Agencies, and the ability to access and operate agency services (such as Centrelink, Australia Post, banking and the Australian Taxation Office); developing needs assessment skills and evaluation methods (community and client services); and training development and delivery and brokering arrangements with training providers. Training and networking with colleagues are additional important issues that need to be tied in with staffing

Training Staff to Cater for People with Disabilities: This issue can affect how the teleservice centre should be arranged and how the facilities can be accessed. For people who are vision impaired, special enhancing equipment can be acquired for PCs etc. Speech to text, and text to speech software can also be procured. As for other key client groups, it is important that staff be aware of, and trained in how best to assist those with special needs.

Coordinated support – both in the international literature¹⁵ and within Australia, coordinated support is seen as one of the most essential factors for teleservice centre survival. This needs to be appropriate to its environment, and may need to be specific to a particular state or territory government and their reporting procedures. However, support is much more than financial support. It includes:

- Ongoing support centrally acting as one voice for all teleservice centres within the state
- Lobbying power for new programs and initiatives that will introduce additional income through commissions and set payments
- Training for staff
- Quality control and credibility on a state basis (the network will only be as good as its worst centre)
- Cross fertilization of ideas to grow community initiatives
- Marketing initiatives and assistance
- Establishment of networks (Internet, Video conferencing – one way and interactive)

Support includes assistance with technical matters and also business skills. This is another aspect of teleservice centres that can benefit from a networked and scalable approach. The efficiencies come from aggregating the forms of support that are most appropriate to the level of service. Thus, a tiny centre may not need to have the same level of business skills as a centre in a larger town that has 10 staff. However, they might want or need to access training to take the next step towards growing the centre, and this could be made available through a yearly meeting of all state centres, supplemented by advice and support from colleagues online. Aggregating technical support across a region or district can also be more cost effective than buying in commercial expertise. While most of the existing support networks are run by state governments, other alternatives exist.

Example: A national non-profit computer assistance, support and education group based in Canberra offers networking and other computing support to community organizations. Typically, the cost is less than half commercial rates. The group provides work experience for volunteers together with paid expertise, and the community groups also learn to manage much of their networking and computing needs in a collaborative learning process. The data base they developed for one

rural based group, Volunteers for Isolated Students Education, has been very successful in keeping VISE's costs down while improving their service and coordination.¹⁶ There is huge potential for groups such as CASE to work with open source applications, and further reduce costs to clients.

Business approach – While any pursuit of self-funding implies a business like approach, it is important to recognize that the information economy accommodates a wide range of business models¹⁷. It is part of the transition from 'atoms to bits.'¹⁸ Since many teleservice centres operate with substantial assistance from volunteers, this can inhibit their development as a business. At the same time, close community links mean that centres are often well placed to identify and work with others who either have services that can meet local needs, or who are willing to pay for these services. Striking a balance between income, volunteers, informal responsiveness and a focus on revenue can place extra pressures on centres that started with little understanding of business reporting, etc. This again points to the need for networks of support to develop these business skills, and also to achieve consistent measures for accountability, fiscal responsibility, etc.

A triple bottom line approach, as discussed in Working Papers 2 and 4, shows how teleservice centres can meet community needs within a business approach. This approach offers a model which is scalable, creates demand aggregation for both services and bandwidth, and achieves longer term capacity building. It recognizes that the goals and processes for many types of teleservice centres are similar. The working papers agree (see in particular Working Paper 12) that these centres are best seen as cultural and social community centres, supported and complemented by business and technical skills. Business accreditation could give centres substance and confidence in their partnerships with government and private sector agencies.

As described below in the section on communications, information technology and the arts, the recommendations for broadband enabled national extranet for community development, along with a supporting secretariat are the elements needed to allow a triple bottom line approach to succeed. It would also engender the feedback loops from the community back to governments.

Community ownership & partnership – Many of the more successful teleservice centres are community owned and operated. This brings benefits such as the ability to negotiate free software. In WA the centres have received hundreds of thousands of dollars worth of free software. There is more support from the community when they own the teleservice centres, and this also makes it possible to explore alternative business models such as cooperative and non profit structures. This can also be useful in achieving exemption from general taxes.

However, other ownership models can also function well. The only absolute seems to be the requirement for community involvement and responsiveness. The research echoes the statement in the DCITA discussion paper: 'Centres need to be owned, planned, resourced and implemented in partnership with other key stakeholders, including government, community groups, businesses and industry sectors.'

The experience of the Rural Transaction Centres was that these did not always fit into a clear ownership model¹⁹. They were more amorphous, with perhaps local government ownership of the building and another group owning the equipment, while yet another group had informal arrangements for access or training provision. This presented difficulties from a government oversight perspective, but it needn't be a problem on a practical level. It points to the need for flexible and evolving business plans, but also for reporting mechanisms that are transparent and

promote good governance, particularly in situations where ownership, management and funding are complex and changing.

Commitment – It is a given that local community involvement must include serious commitment. No research supports the idea of centres surviving without their community getting behind them. Commitment is of course a two way street. Without long term commitment from the funding body, community projects are unlikely to ‘go the distance’ towards sustainability. When the funding period is too short or too inflexible, there is not sufficient time to develop the necessary business and marketing skills necessary to run a centre. Commitment needs to be seen as a whole of government issue, with appropriate levels of commitment to achieve long term goals for each tier. Thus, the ‘chicken and egg’ aspect of partnerships was raised often in the working papers: centres need the security of all levels of committed government in order to negotiate suitable partnerships for government and commercial services. Without guaranteed longevity many initiatives cannot be sourced. This commitment needs to extend to recognition of diversity, and a willingness to cross-subsidise some centres that may never attain self-sufficiency. As with telephony in the past, some parts of the country have always cross-subsidised others in order to achieve national goals.

Networking – This is the dimension that is most challenging for governments to come to terms with, as by definition it implies looser coupling between control and outcomes. Networking works best when it is diffuse, and facilitated rather than managed. The precise kinds of networks and the content that flows over them is best determined by the networkers. That is, centres need to be able to have a place where they can both contribute and draw on non-centralised assistance. This is largely the model developed by the successful educational network, EdNA²⁰. This is a virtual community based around learning, education and training in Australia. It is both a directory of resources and a database. It is managed by a non-profit group, but funded by all governments involved with providing education. It is a collaborative, long term partnership that seeks to reap the synergies of learning about learning. As one online educator noted: ‘In the knowledge economy, the ultimate killer application is learning.’ EdNA facilitates information sharing and discussion. It is an award-winning all of government achievement that has warranted and rewarded its partners commitment.

Teleservice centres require a similar solution, but one which provides infrastructure as well as a portal to information and discussion. The need for an extranet has not gone away.

In addition to the above factors covered in the DCITA discussion paper, the research identifies several others. These include:

Technical infrastructure – Technology in teleservice centres is the means to the end – not the end in itself. Technology can only ever be a tool, a part of a wider web of infrastructure. However, infrastructure itself can never determine the outcomes of its use, as these are always embedded in the social, environmental, economic and political patterns of their use.

The technological requirements for teleservice centres have evolved rapidly. The Working Papers, particularly 1, 4 and 5, make the argument that broadband is now necessary for advanced applications. This makes broadband a key element for sustainability of teleservice centres. Slow connections are no longer capable of delivering equivalent access to rural citizens, students, health care professionals, businesses and community organizations. Centres seeking contracts for government service delivery will increasingly have to demonstrate their capacity for doing this efficiently. The working papers and other research support a view that a minimum speed of 750 kbit/s is needed for most centres, and 1.5 mbit/s for larger centres. We discuss the communication and information technology needs of teleservice centres in more detail in Part II.

Policy environment – Most of the other success factors are contextualized in a favourable policy setting. This encompasses not just the willingness to provide initial funding, or even longer term support, both technical and business, although these are essential. It also includes the tax structure, and ensuring that community groups are not unduly penalized in their not for profit status. This is discussed in several of the Working Papers. Issues for public policy include mechanisms for funding, taxation, partnerships, facilitation, networking, commitment, infrastructure, funding arrangements and governance arrangements.

Another dimension of the policy context is the ability or willingness to adopt a more holistic and flexible approach to setting and achieving goals. Many government departments are trapped within their ‘silos’ and are unable to think creatively about solutions to pervasive problems.

Learning framework – goes well beyond formal learning structures and subjects for individuals and communities, and includes the idea of continual learning about process at all levels. Learning often means new ways of doing things. Past funding approaches for teleservice centres have worked where there has been long term government commitment, as with the Tasmanian and Western Australian centres. This has allowed them to learn what works, to place a value on the positive outcomes, and to share this learning across the state. The recommendations of this report support a framework that would distribute this networked learning and value adding and sharing nationally.

Example: Westlink²¹ is a satellite communications network providing education, training and information services to regional and remote area residents throughout Western Australia. The WA Department of Training and Employment and the WA Education Department are the two biggest users of the network, providing both formal education courses for students as well as professional development programs for teachers and other special interest groups in rural and remote areas. Other users include the Health Department, WA Police Service, the Community Skills Training Centre, community organisations and a variety of health-related and other professional associations.

A large proportion of programs are broadcast live, with the opportunity for viewers to phone the studio and speak to the presenters. This type of ‘talkback television’ provides an enhanced level of participation and interactivity, enabling viewers to feel part of a statewide audience, and allowing specific needs to be addressed immediately.

Responsive adaptive governance processes – at all levels, and at an integrating level. This is essential to avoid ‘capture’ by special interest groups. Transparency of process and agreement on measures of accountability are fundamental for capacity building at all levels. Part of the triple bottom line perspective is to ‘design in’ processes that assist regional development in ways that are consistent with social sustainability. Transparent process in the management of teleservice centres can help to create democratic accountabilities at the other levels of interaction.

On a practical level, this means that all documents relating to financial arrangements and partnerships should be available to all interested stakeholders. This is particularly important for centres that have been funded with public funds.

Appreciation and support for local content, culture and recreation – Many of the successful teleservice centres produce community newspapers. These can be either as printed papers or online, sometimes both. Teleservice centres are also involved in helping the community to promote local

events, providing services for making colour posters, running a library, museums, art galleries, craft shops, and producing local tourism and heritage information. These are all services that add value to local knowledge and are appreciated by both locals and visitors. Centres with broadband access are able to expand their cultural services even further.

A snapshot of the range of activities and services communities are using new technologies for is provided in the report Australian Communities Online.²²

Check list of issues for teleservice centre managers

Below is a set of issues that should be considered by the Management Committee and Manager of a Teleservice centre to maximise the Centres chances of remaining viable.

- Hold community meetings to determine what is needed
- Set resource and performance agreements with short term and yearly goals
- Develop a business plan with costings
- Meet with business providers to ascertain what their needs are, identify programs and services that are missing within their community and seek to address these.
- Liaise with other centres/central support to identify new programs and initiatives
- Consider innovative ways to recruit volunteers, for example: put on a morning tea to discuss what is involved, and follow up with a training session
- Identify potential partnerships at all levels: local, regional, state/territory, and national. For example, at a local level, some centres have good relations with their computer supplier, who provides low cost or free technical support. At a state level, it may be possible to help deliver environmental programs.

The following chart outlines the sorts of partnerships that NetC teleservice centre in Wangaratta is involved with. The potential for cross-fertilisation between groups in unexpected ways is part of how network synergies become vibrant: the sum is greater than the parts.

Regional Economy	Regional Community/ Culture	Regional Environment
Range of access options	PALS	landcare.net.au Zope/ Plone portal
SME sites	Community organisation sites	Older sites
	Regional search engine/ Business directory and Regional database	www.neon.net.au/community/environment/
	Currently being built	
	http://www1.netc.coop/community	
	disability network portal	
Zope/ Plone sites	Training and technical support	Training and technical support
Regional search engine/ Business	Virtual and physical office services	Landcare and NECMA - integrated into portal

engine/
directory

Business

into portal

www.landcare.net.au

www.necma.vic.gov.au [new site
coming] www.nevrwaste.vic.gov.au

Regional database

Government projects

Centre for Online Regional Research

Payment gateways
(SSL)

Centre for Online Regional Research

Partnerships

E-business
consultancy

Partnerships - Community partners

News feeds

Government projects
(RICS)

Digital culture - RAV, ACMI

Communications with lists, forums
etc and content management – with
search engine

ICT business
incubator

Virtual and physical
office services

CORR

CAN

Partnerships

Reg Chambers of
Commerce

[http://www.alpvalley
s.com.au/](http://www.alpvalleys.com.au/)

Teleservice centres as a strategic national resource

Since the inception of the Teleservice movement with the establishment of Centres, by whatever nomenclature, in rural, remote and regional centres there has been a tendency to deny both their potential and their ability to reach sustainability for a number of reasons. With the close of 25% of these locations since 1993 all participants and government funding bodies are now agreeing that sustainability is the key issue concerning the future of these centres and that it is time for the issue to be fully investigated and for the findings to be openly provided.

Australia now has an extensive national network of teleservice centres that should be recognised and valued as a unique and irreplaceable national resource. If used strategically it has the potential to provide opportunity for programs and services to be delivered consecutively to almost all rural and remote communities throughout the nation. It could become a critical integrating element in Australia's progress towards becoming a truly smart country.

So far, this report has addressed the limited sustainability issues that were raised in the DCITA discussion paper. However, the issues relating to the viability of teleservice centres are broader than

this. The CTSA has drawn on the collective experience and expertise of its members to provide the following analysis of the situation and the steps that can be taken to rectify this.

Current situation is not optimistic

Data collected by CTSA shows that six hundred multipurpose centres have been introduced throughout Australia during the past 10 years. Twenty five percent of these have subsequently closed due to their inability to be sustainable on a financial basis. All but two were stand alone centres. Today, 296 sites of the remaining 450 sites form state networks, and only 2 have closed since 1993. Of the balance of the centres (approx 154 sites) nearly all are still operating under their initial funding. If they follow the trend discussed above, these centres will be at risk.

Teleservice centres in 2004: a policy conundrum for an ailing canary after a decade+ of operation

The process of examining the changing nature of the environment for teleservice centres is two-sided. It contains both the possibilities for their future sustainability and the risks of not taking action. In terms of a conventional SWAT analysis, this section looks at both the opportunities and the threats.

Despite the RTI's acknowledgement of teleservice centres, at the start of 2004, at least a quarter of the remaining teleservice centres operating without state support are likely to close in the near future. In addition, scores of Rural Transaction Centres, neighbourhood and community houses and adult and community education centres are tenuous without an ability to aggregate and provide advanced services via broadband.

The CTSA has identified 600 Teleservice sites that have been established since 1993. Approximately 150 of these have now vanished.²³ Research from near and far indicates that some cross-subsidisation for both funding and support is necessary if these centres are to continue to work with and for their communities, and indeed, those teleservice centres without central support are much more likely to disappear. A similar situation probably exists for other forms of teleservice centres, such as the rural transactions centres (funding finishing this year), the TAPRIC²⁴ program (funded but expected to become self-sustaining), and other online centres for learning or providing advice to citizens. NTN has funded a large number of centres over the past few years and these will also cease to be funded in the very near future. 38 of these centres are located in SA.

Regional Australia remains at a disadvantage in many ways. Not only are incomes lower on average than for metro Australia, but also the gap is increasing.²⁵ Thirty-six of the forty poorest federal electorates are rural or provincial. This in itself makes it more likely that both instability and discontent will grow. Thus, non-metro Australia is less able to pay for the suite of skills and services of the online world, even if they are available. And often they are not, according to the RTI report²⁶. This discrepancy persists, despite repeated reviews and surveys of telecommunications in the bush. The social, economic and environmental evidence that is central to this report point to an unquestionable minimalist position on the existence of teleservice centres. At the very least, it is imperative that they remain in place for the foreseeable future to provide a 'beacon' in rural Australia. There can be considered a universal service obligation to provide citizens, consumers and business with an ability to participate in, benefit from and continue to learn about 21 century information and communication technologies. Anything less will effectively condone the creation of a two tier citizenry by exacerbating existing inequities.

This is not a trivial task: half the area of the continent contains only 0.3% of the population, and the most densely populated 1% of the continent contains 84% of the population.²⁷ The dynamics of globalization have seen many inland areas lose their livelihoods, as farms become larger and some small towns disappear or decline, with the exception of accessible coastal areas²⁸. One commentator has observed a trend (initially seen in the US) of rural towns becoming low-rent havens for a ‘new inter-generational underclass’²⁹. Given this situation, the importance of public access to telecommunications services, such as those offered by teleservice centres, is likely to persist indefinitely. Australia cannot afford to lose more rural and remote communities. Teleservice centres cannot only provide access to technology hubs, they can use these hubs as a ‘means to an end’ that will allow them to provide post office, banking, library services, operate as a small business incubator taking over and providing many small programs and services that threaten to disappear from the town. Market forces do not work well where long term trends indicate inequality is increasing. Similarly, for Teleservice centres to survive and attract new support, programs and services they must have guaranteed longevity. It is not possible these centres to attract such programs and services on the ‘hand to mouth’ basis in which many of them currently operate.

The dynamic environment of teleservice centres today includes rapid technology change and changing demographics of regional and rural Australia. There is also heightened awareness of the need for greater responsiveness to catastrophe (cyclones, floods, infrastructure failure) and long term threats both perennial (flood, drought) and current (global climate change and terrorism). Communication technologies embedded in local skills, resources and people can be part of the response.

The following section places teleservice centres in a wider context of social, environmental and economic change. These constitute the ‘triple bottom line’ that together determine how well we manage our resources, our future and ourselves.

This context setting is very important to any discussion about telecentre sustainability, because it shows how telecentres fit into regional and rural development. It provides background to understand not just why many telecentres have become ‘endangered species’, but also why so many have remained in operation without clear government support and integrated policy that recognizes their value.

Example: Indian information technology companies are targeting Australia for their services. These include not just outsourcing of technical support and call centres, but also electronic commerce and cultural services that are another layer of competition for Australian companies. Services such as electronic book production and transcription, document management and pre-publication formatting are the kinds of value-adding activities that are typical of the knowledge economy. They can also easily be provided by rural Australian companies, particularly those that work in a distributed manner and draw on expertise across a wide catchment area. One example of an Indian company offering these value-adds to information is: E-book Services <http://www.e-bookservices.com/>

While it is not possible or reasonable to erect barriers to such entrepreneurial overseas companies, it is certainly desirable to assist non-urban entrepreneurs in particular to build capacity for delivering similar services. A broadband enabled teleservice centre with skilled people and the full range of software and hardware required for both commercial and cultural content production has a chance to

get to the starting gate in this competitive environment. Such a service could be available throughout Australia via an extranet. It would make possible distributed publication, to and from local, national and even international destinations. This approach is scalable, as not every telecentre needs the full suite of equipment and staff; all they need is to be part of a regional network which contains these capacities.

Triple Bottom Line³⁰

In today's increasingly complex world, managing change has become an industry and a catch cry for individuals, organizations and even governments swamped with information and unpredicted events. Technology is both part of the problem and part of the solution. While compartmentalized government departments struggle to deal with myriad fragmented programs and services, the pace of change becomes a threat. Meanwhile, the seamless reality of individual and community life continues to respond more organically. Residents of small towns in rural Australia do not need research to tell them that the closure of a bank puts them at risk. They know that their chances for getting by depend on the sum of environmental, business and social factors available to them. This is the essence of the triple bottom line.³¹

New communications and business technologies become a threat when small towns and isolated areas cannot access or make effective use of them. Rural people know that these technologies can and should be part of their solutions to local viability, if only they could be on the same technological playing field as metro Australia. That is why the demand for electronic services grows with the distance from an urban centre.³² The capacity for specialized services shrinks when only a small population is available. In many parts of rural Australia, a multi-purpose teleservice centre is the only way to provide the business, government and social benefits of new technologies. It is also the only way to achieve some network effects, as the value of the network grows exponentially with the number of members. This is partly because one person's online course becomes another's income, and one business web site becomes a model for 10 others. These economic and social benefits can be achieved via a fast extranet that operates nationally and is therefore cost-effective.

The triple bottom line approach helps to account for the key sustainability factors of environment, economy and society. It provides a more balanced look at what underpins well being. We all make these sorts of assessments on an individual level: for example, striking a balance between our social life and working longer hours for more income. Rural teleservice centres can provide triple bottom line benefits that foster social capital and community resilience. They can be focal points for determining the kinds of sustainability that mean most to local people. In this way, they can promote democratic capacity building. The values underpinning a triple bottom line approach are consistent with the political values that guided Australia at the start of Federation. They include a belief in equity and a 'fair share', even if this requires some cross-subsidisation. These values stand in stark contrast to the 'winner takes all' philosophy that has been identified in relation to globalisation.³³

The economic benefits of teleservice centres are perhaps easiest to document, for example in the evaluation of the Tasmanian centres. Businesses and individuals are helped to take part in the information economy, an area much promoted by the government³⁴. Benefits include training, access to wider markets, skills development, procurement, research and statistics, and networking with others in similar businesses. Achieving critical mass of Internet access can create a local industry by itself.

The social and cultural benefits of teleservice centres are, by current definitions, outside the realm of measured progress, but that doesn't mean they aren't equally important. Working Papers 10 and 12

give many examples of the social benefits that teleservice centres have been providing, as does the evaluation of the Rural Transaction Centres.

Another social dimension of teleservice centres is the opportunity to become involved in digital communities and digital citizenship. The new literacies that underpin emerging forms of governance require learning and shaping.³⁵ Teleservice centres offer non-metro Australians access to this learning curve. Without it, rural Australians may eventually become second class citizens.

The environmental dimensions of teleservice centres interact with the economic and the social. A starting point is an appreciation that global environmental change is now a reality. The centres have already played a part in helping communities cope with environmental events, and their role is capable of expanding. Providing environmental information, assistance with preparation for cyclones and flooding, relief and recovery are some of the ways teleservice centres are involved with their communities and environment. Other services include environmental monitoring and electronic workshops for national systems management at the local level.³⁶

Example: The Cockburn-Burns teleservice centre carries out the same services as other telecentres. Their strategic plan is to restructure the community as a totally environmental community incorporating environmental housing concepts; water resource management and green energy. The project revolves around upskilling the mainly unemployed indigenous regional community in environmental knowledge; partnering with universities and tertiary education (visitations etc) and linking Government, industry and community. The Telecentre will form the 'nerve center' of the project. Under this proposal, Cockburn-Burns Telecentre would apply for DGR status for this project and open separate bank accounts and accounting procedures for this project to meet Australian Taxation Office requirements. It will enable this project to source private foundation/philanthropy funds and not be 100% reliant on Government grants.

It is important to recognize that even if all of rural Australia had access to an information infrastructure equal to that of the cities, many citizens would not be able to afford to use it. The nature of technology and social capital³⁷ is such that communities need to interact productively and set goals for themselves in relation to their environment, economy and social needs and goals. Teleservice centres can and do play a vital role in triple bottom line outcomes for rural Australia. To allow them to slip away rather than supporting them as a strategic national resource would be a grave policy error.

Part II – Key issues for teleservice centre sustainability

This part of the report discusses in more depth the key issues that must be addressed if teleservice centres are to become sustainable. We emphasise that the terms ‘teleservice centre’ or ‘teleservice centre’ apply to a wide range of facilities. These have been established throughout Australia with differing requirements, operating procedures and terms of funding. Within each state and territory teleservice centres have also varied considerably, according to their locations, managements, etc. This has of course affected their achievements and evolution. For example, in Queensland the centres have been funded as learning centres, but there are also some independent centres. In Tasmania there are also some centres that are independent of the state network. WA, NSW and SA have full multipurpose teleservice centres. However SA does not have formal central support and funding and no annual assistance from the state government. Victorian teleservice centres are also not supported centrally or in a network, although some were funded by the SkillsNet project. Further, this incipient network can be augmented by Rural Transaction Centres, neighbourhood and community houses and adult community and further education groups. Such a network would also benefit those in urban centres, particularly in the increasingly disadvantaged urban fringe.

Evaluation of Tasmanian Community Access Centres³⁸

This review, conducted in 2003, will not be covered in depth as it was commissioned by NTN. However, this is a valuable document, comprehensive in its approach and review of other studies. It found significant benefits to the Tasmanian community for encouraging learning of all kinds, and for bridging the ‘digital divide’ and assisting lower income groups to become familiar with online technologies. Its findings were consistent with those of the evaluation of the RTCs, as it identified significant social and economic benefits. The investment by the Tasmanian government was found to have produced a return on investment of over 100% in terms of locally sourced goods and services, employment, volunteer hours, skills training, and access to employment opportunities for users. Benefits that were less immediately quantifiable were found in the areas of justice, health and social service budgets, and improved economic performance.³⁹ It also found that some users of the centres would eventually purchase their own computers and get Internet access at home, but would return to the centres for further training, support with upgrading software, and also for social interaction and the informal learning available.

The Tasmanian experience basically encapsulates the national experience with teleservice centres. It includes all the dimensions of support, social capital formation, online learning and economic benefit.

Key issues for teleservice centre sustainability

- Need for central secretariat to coordinate and negotiate with all teleservice centres for government and corporate service contracts (local, state/regional and federal)
- Need for a national extranet, managed by a not for profit body owned by the teleservice centres, to provide the quality of service, technical standards, content management and distributed publication systems and training for synergistic local-to-national integration of triple bottom line outcomes.

- Need for teleservice centres to have broadband capacity as part of the National Broadband Strategy
- Need for central support unit within each state or territory, so centres can achieve networking synergies and efficiencies
- Need for innovative and longer term funding models
- Need to form Regional Funding Groups from all three levels of Government in regional, rural, and remote communities to develop funding applications with community representatives. The role of the existing Area Consultative Committees could possibly be extended to take on this function, and teleservice centres could come under this umbrella.⁴⁰

Below we summarise some of the suggestions from the accompanying working papers. They cover communication issues, partnerships, funding models, approaches to regional development, and considerations for multi-purpose centres.

Approaches for sustainability

Central to this report is the belief that because teleservice centres should be valued as a strategic national resource, all levels of government need to be involved in supporting them. A number of options are available to achieve this. The Working Paper authors, all experienced in teleservice operations and establishment, have drawn on their collective experience to make a number of recommendations. These include funding, partnerships, tax arrangements, sponsorships, and regional approaches. We outline these below, and refer readers to the full set of papers available at <http://www.teleservices.net.au/papers/>

Communications, Information Technology and the Arts

Regional Information and Communications Technology (ICT) expansion has been the great hope for releasing regional communities from the tyranny of distance. Yet to date new technologies have not provided an entry point to the economic dynamism experienced in urban Australia. As documented above, the gap between metro and non-metro incomes continues to grow, and telecommunication services remain inadequate. This section on the technology requirements of teleservice centres, and the rationale for a national regional broadband extranet draws on information provided in several Working Papers (number 1 by Andrew Cheel and number 4 by Peter Farr), discussions and analysis provided by Peter Jamieson (Director of the Centre for Online Regional Research and CTSA Committee member) as well as additional background research.⁴¹ Of particular interest and relevance is the detailed analysis of bandwidth requirements for teleservice centres, available in Working Paper 5 by Walter Green. That paper conclusively puts to rest any illusion that 19.3kbit/sec is adequate for reasonable participation in the information society and economy. Both infrastructure and policy arrangements are identified as critical to supporting the economic and cultural development of regional Australia. The working papers and other research support a view that a minimum speed of 750 kbit/s is needed for most centres, and 1.5 mbit/s for larger centres.

The current policy and infrastructure context continues to disadvantage regional Australian ICT development. Factors include:

1. An existing telephone based infrastructure that is poorly developed and maintained with respect to the performance required for data transmission. This low ICT potential is accompanied by negative market forces and policy settings that favour incumbency, allow telecom providers to choose the most lucrative markets and discard cross-subsidisation principles, and pre-empt the development of more appropriate technologies.
2. High costs and poor performance impede the development of ICT in regional business and community activities. This, in turn, contributes to a low level of awareness of the potential benefits of greater ICT integration into regional communities.
3. Only recently have regional communities started to experience the possibility of online services in areas like tax compliance and banking albeit with poor bandwidth and frequent drop-outs.
4. Features that encourage more sophisticated and regularised ICT use include broadband ‘always on’ services using ‘tricked up’/digitised copper based technologies [ADSL and ISDN]. While these offer a glimpse of what may be possible, they limit the development of wireless technologies by allowing providers to select areas for infrastructure placement. This reinforces the current regional digital divide because these technologies are only placed near the exchange. It creates an in-town versus out-of-town distinction rather than building scalable solutions that could address existing telecommunications inequalities.
5. The slow but inexorable decline of regional Australia has only recently been plotted against ICT potential – this process has been politicised by the privatisation of Telstra. It is time to contemplate what is required for beneficial regional ICT development without recourse to legacy systems that have not been successful in delivering ICT potential. These systems can perhaps adapt and fit in with future ICT development but can no longer be looked at ‘the’ starting point.

New solutions are needed that can take rural communities along the next step to full electronic access and participation in the information economy. Encouraging alternatives are being demonstrated in the Northern Rivers region of New South Wales, and in the Shepparton/Benalla region of Victoria. These are regional broadband solutions that use wireless to deliver broadband for the full suite of voice, data and cable services.

Any investigation of future ICT development must still be grounded in the reality of market forces but the market must be given incentives to underpin regional ICT development. This has been enshrined in the rhetoric of competition and broadband initiatives but now we also have the recognition of the light house role played by regional teleservice centres via Networking the Nation and similar programs [RTI Report 5.5&5.8]. These programs are now at risk because they have been saddled with legacy technologies and market forces with little potential to generate new ICT development.

The basic requirement is for appropriate technology that allows truly effective use to emerge within a community or a region. At a minimum, this would include:

- ‘Smart’ procurement of carrier and Internet services including voice over IP.
- Demand aggregation via cable or wireless technologies at local community level through the teleservice centre to embrace key local users of bandwidth.
- Demand aggregation across regions for connectivity to each Online Access Centre. A proportion of Centres will connect using terrestrial, while others will use 2-way satellite.

- Bandwidth-on-demand to cater for peak uses such as high-quality videoconferencing, audio and video streaming, etc.
- Interconnection of Telecentres via a secure IP-based Virtual Private Network (VPN) with sub-networks based on geographic/organisational/cultural principles.
- National/regional Data Centres and ASP (application service provider) model.
- Central web hosting with distributed publishing to integrated local/national databases and search capability.
- Standard Operating Environments for teleservice centres
- Secure remote access for users/members.
- Extranets for external partners (e.g. electronic procurement services for communities)
- Ability to cater for the inevitable convergence of ICTs and electronic media.
- Central/Regional network management, service desk and related administrative support

Communications speed is a major factor of relevance to Teleservice centres

In many areas consulted broadband technologies are unavailable and satellite communications cost were prohibitive or technically inappropriate. High-speed communications in Teleservice centres within a region where such resources are generally unavailable provides opportunity for business practices not available otherwise.

The cost of software and updates is a major problem for teleservice centres. Broadband access would allow centres to operate as distributed applications providers for both commercial and open source software programs.

Example: A builder, architect or designer can come to a broadband-enabled teleservice centre to access a ‘use on demand’ high purchase cost current version of a major CAD program in a remote rural setting for a fraction of its purchase cost. They can print those plans on a wide format printer, laminate them and save the drawings on a CD or DVD, all for a fraction of the software purchase cost, without the concern of high cost of equipment and software replacement. This ability would help maintain the teleservice centre’s relevance and solvency, while contributing to local economic resilience.⁴²

The value of a national extranet

The growth of online community access locations increased significantly with Networking the Nation. At the same time Rural Transaction Centres and Adult Community and Further Education and Community and Neighbourhood Houses have all increased the potential and need for a national regional community network.

This diverse range of centres have been established across the nation, all with Internet access and all contributing to triple bottom line benefits for their communities and the nation. However, the fragmentation of government policy has left the picture incomplete and the dots unconnected. The missing link is an Internet Protocol based network that would allow network synergies to emerge.

This absence of an electronic IP based network severely compromises the future potential of teleservice centres to provide basic government, learning, commercial and cultural services for their communities. This in turn works against community sustainability in rural areas where support is most needed.

Networks can reduce isolation and introduce shared programs, provide economies of scale and do much more than centres could achieve in a stand-alone environment. Central to the notion of an electronic network is a common web site as an interface between members and to link members with the broader world. An extranet combines an internal [members only] and external [internet] component in a single website. Extranets can be static sites, with all information is marked up into html with hyperlinks. A dynamic extranet stores the information in databases, and displays it as html upon request. Dynamic IP extranets in particular have a much greater capacity for interaction between users. As well as access to shared information they offer the capacity for all users to contribute to and refine that information. It allows perspectives to be exchanged from the local to the national, and from the national to the local. It is socially scalable. Only a dynamic extranet can provide the network needs for the range of online access centres and their myriad functions throughout Australia. In terms of communication capacity, a loosely coupled network that allows the maximum number of linkages to other sub-networks and people will achieve the greatest networked synergies. This is essential for meeting the triple bottom line challenges that are likely to face rural areas over the coming decades.

Extranets are more sophisticated in their capacity and concepts. They include organisational processes and not just the display of passive information. High interactivity is a characteristic of advanced stages of e-government and also web design for organizations⁴³. When linked to participatory intent, it becomes a building block for democratic capacity building.

Computer based files, particularly databases, have replaced paper based file systems as a means of not only archiving information but creating and maintaining existing information. In layman's terms this means a file can be worked by individuals or by a number of people. Dynamic extranets allow collaborative processes for shared ownership and tasks. Extranets therefore can significantly enhance workflows both within organisations in relations with external stakeholders and clients. This is the transformative promise, the quantum leap of the knowledge age. An online learning expert noted that 'In the knowledge-based economy, the killer application is learning.' This learning goes far beyond individual, subject based knowledge acquisition. It includes social learning and especially collective goal setting, measurement and achievement. For example, only now is acceptance that the climate is in fact already changing become widespread. This illustrates the emergence of a collective knowledge through shared information and exchange of views on a global scale. Without an ability to interact widely and rapidly, social learning is stymied. And only when new shared understanding becomes established can we tackle society-wide problems such as climate change.

Extranets facilitate a number of processes that harness individual and group learning. These are essential for electronic commerce competitiveness, processes such as editorial inputs, or multi-media content changes before being published to a wider community. Sophisticated dynamic extranets convert information into objects which can be stored in databases. This further extends organisational processes beyond mere display, which has been the case in traditional static sites.

The more sophisticated dynamic sites treat these files as the objects they are. This allows them to be manipulated in the same way, either through the extranet or within an office. This facilitates not just collaborative processes, but also distributed publishing. In today's convergent, multi-media

environment, publishing includes files (objects) of all kinds: video, audio, animation, as well as text. The teleservice centre can be the local hub, bandwidth shop, the compliant workplace, social contact space or rostered workplace in a number of small towns, and make good use of empty shops. The uses are almost limitless:

Community engagement: For a small regional community, the possibilities are endless. The extranet could host 'town hall' meetings about regional issues, even though some participants are half a day's drive away.

Industry development: Promoting local and regional businesses via rich multi-media content allows them to compete with the best overseas and interstate producers. Local cultural offering can be documented, archived, shared and developed. Access to specialized networked and infrastructure, such as the Film Industry Broadband Resource Enterprise (FIBRE)⁴⁴ can pave the way to employment, skills and training, as well as new pride and confidence in regional abilities.

Virtual call centres: One of the unique features of a VCC is its scalable capacity. Call centre operations can be decentralised and conducted in a multiple of dispersed locations, while maintaining service levels and call control as if call agents are operating from one centralised location. This means that call centre operations are no longer location dependent, with call agents able to work from a home or a small office in a rural town. This opens up opportunities to provide vocational skills and flexible employment to people who are otherwise restricted in their occupational choices because of either remoteness or disabilities that prohibit travel to workplaces. town

While some call centres still focus on sales orientated telemarketing activities, the main growth in the industry is based on the increasing strategic importance of customer service to corporate organisations. This, coupled with the continued trend of corporate organisations to outsource customer relationship management and the increasing diversity of customer contact channels (such as email, fax and mobile text messaging) means that call centres are more often required to provide multiple non-sales related contact management services.

However optimistic the possibilities, the reality is that such an extranet cannot be established without government vision and support. FIBRE is funded by the federal government. A national extranet would require infrastructure plus secretariat services to nurture the network and negotiate government contracts as anchor tenants. In the absence of wider policy to provide broadband to all rural and regional areas, provision of an extranet to teleservice centres is a feasible alternative.

With sufficient bandwidth, the physical location of the extranet parts become independent of distance. Users can participate in sophisticated processes outside the traditional centralised urban business model. A fully developed national model could set up the protocols for coordinated activities to ensure get a uniform service delivery across the entire membership base. This quality control would be essential for delivery of government and corporate services. A number of application layers and databases would reside in the extranet, organized via the underlying software into web-based displays that conform to the required standards. Workflow quality, revision, feedback loops, monitoring, discussion: all this becomes available at the level of world best practice. The implications of these processes mean that information based services can be delivered on a real time 24/7 basis, regardless of location provided sufficient bandwidth is made available. This approach would allow rural Australia to compete with India and other developing countries for call centre services. Teleservice centres could become a universal service delivery platform often not available in rural and regional home and business locations.

With the assistance of an interim secretariat to initiate the process of contracts and service aggregation, a community owned national IP based extranet can therefore establish its sustainability through a mixture of community, public access, educational, government and corporate clients. A public access location billing system has been developed as a Networking the Nation outcome. This is available to manage user pays contributions to bandwidth and general teleservice centre costs.

Some of the applications and services that can be run via a national regional community network/extranet include:

Voice, data and video:

- IP based conferencing
- collaborative learning
- interviews/consultation/examination
- Voice over IP to significantly lower distance based call charges
- secure data and voice channels

Information/file sharing:

- Documents
- Collaborative works
- personal/private files
- promotional material associated with tele-service centre agency for products and services
- help desk, with rich library of multi-media files to resolve service issues of participating government and corporate bodies.

- how to create and participate in creation of information for sharing or personal use

Banking and other commercial transactions for instance:

- buying and selling of shares
- monitoring and changes to self funded superannuation processes
- wholesale and resale purchasing online
- pay online systems

Compliance with government obligations and regulatory processes:

- ATO
- ABS
- AQIS
- applications, permits and licences, etc

Opportunity for participation in community and government and corporate sponsored community engagement/community development programs:

- Landcare
- Environmental monitoring
- electronic citizenship/democracy
- Community created volunteer organisations - disability, cultural development, sports and hobbies

Education:

- formal (via remote delivery and accreditation) and informal (self-directed learning)
- employment based / skills development learning

These centres can act as trading posts for government and corporate to provide display, drop off and pickup locations, initial service support (web and PDF based). Through an extranet these processes

can be coordinated for predictable outcomes (for instance tracking delivery, aggregating demand for reduced freight and handling costs.

It can do all the above and has the capacity to set up a reciprocal process for community needs within a national setting. In essence an extranet can provide an alternative media for rural and regional Australians. This is of fundamental importance to the sustainability of these communities and their ability to relate to other Australians in a national and yet local context.

A well configured extranet can allow the development of local processes, including economic development, environmental and educational resources and inclusive dialogue. An extranet designed for citizenship offers a means to distribute nationally important services and information, along with the participation in them. The multiplying of network effects through a national regional community based extranet can foster triple bottom line outcomes. It could demonstrate on a practical level the benefits of a whole of government approach for isolated regional communities.

This extranet can allow each participating community to develop its own interpretation of their regional economic community/cultural and environmental development within a national portal, representing regional community online centres. Each centre is provided with capacity to publish with community participants. This can be shared and refined regionally and nationally. Therefore each regional community can represent itself online independent of existing nationally imposed media.⁴⁵

Similarly the collective needs of these local points of presence on the network can be delivered to remote locations. As well as delivery of services there is also the aggregation of voices relating to issues concerning all rural and regional communities. Associated with this is the opportunity to represent national regional issues in the policy development process and also for effective advocacy and central brokerage for the delivery of services. Therefore this extranet media is able to deliver services and provide avenues for participation for regional communities from a triple bottom line perspective. Such an extranet provides the interface between rural needs and solutions. An extranet like this will require comprehensive researching, design, construction and maintenance and therefore a development and ongoing support funding process.

Other critical factors in the development of a national regional community network/extranet are a parallel process of a coordinating executive secretariate and appropriate bandwidth for delivery. Points of presence for this extranet are currently available and community democratic processes can provide the appropriate executive secretariat however broadband bandwidth is a decisive factor in the continued success of a rollout as to the support of participating stake-holders for the delivery of online products and services.

Funding options

Four tier funding

Working Paper 9 by Gail Short outlines what each level of government would contribute to resources and revenue. Possible boundaries for each tier could be:

Local government – can provide free accommodation, maintenance, power, rate relief, and some staffing where appropriate, i.e., a librarian or a technical support person. They can take an active role to ensure that local facilities are not duplicated, and that there is effective co-location with other suitable services. They can form partnerships with teleservice centres for delivering local

government services such as newsletters, maintaining civic discussion email lists, webcasting council meetings, and delivery of local employment and training programs.

Regional bodies – can provide grant monies for regional initiatives, fee for service for delivery of information and services relating to regional development, i.e., seminars, publications, etc. This is particularly important for environmental self-management.

State/territory governments – can fund the teleservice centres and provide a central support unit that coordinates the delivery on a fee for service basis of state programs, and assists with negotiating federal service delivery. As well, this unit can provide the necessary business and technical training, technology support and networking/sharing functions so that the state network operates effectively. This is roughly the model now in place for WA, NSW, TAS, and QLD.

Nationally – the federal government needs to commit to electronic service delivery as a Universal Service Obligation, and undertake the necessary negotiations with the state support units to ensure that this occurs. It is their role also to monitor the health of teleservice centres, to conduct suitable and timely research, evaluation and policy development that is made available to all stakeholders. This will encourage further analysis, reflection, and accountability of all teleservice centres and their funding bodies.

It is also a federal responsibility to oversight the development of the national telecommunications infrastructure. To enable the other levels to operate at the highest level of efficiency, there needs to be a national body that connects the state networks of teleservice centres. This includes a secretariat that negotiates service delivery contracts with all tiers of government for teleservice centres, along with an assured level of high speed Internet access and the administrative elements to enable effective information sharing across the network. This includes the extranet.

There is consensus among the stakeholders consulted that the current method of funding is not working. The time is ripe to reconsider how teleservice centres are funded, since the funding from all participating bodies has now either closed or is drawing to a close. A number of the Working Papers consider new options for funding, and highlight the problems with existing models. Clearly a new approach is needed for a second phase of community ICT development. New models for funding can build on the learning from the first phase.

Staggered funding

Working Paper 9 also proposes a new way of distributing funds. Rather than allocate the funding at the start, a staggered or tiered approach would examine the progress of each grant over a longer period of time. This would allow an assessment of how well each project is going, and whether it might require additional funding to become fully sustainable. It would allow a more balanced view by taking into account the community benefits that are (or are not) resulting. For some projects, the outcomes would justify a further allocation of funding even if the project was not moving towards financial self-sufficiency. In other cases, a project that is financially successful might not warrant the next stage of funding. This would encourage a triple bottom line perspective and also community input to the decision making.

Regional Funding Bodies

Working Paper 8 by Elizabeth Nunn suggests that regional funding groups can provide the necessary perspective to enhance the role of teleservice centres. They can help to focus on important regional issues and bring together the expertise and experience to apply for grants from all tiers of government. Like the Area Consultative Committees, this model is already in existence and could be

developed further. Queensland already has Regional Organisations of Councils at local government level, Regional Managers' Forums at state level, and the North Queensland Regional Directors' Network at the federal level.

This proposal offers the efficiencies of scaling across a region and also has the potential to encourage innovative collaboration. Partly because it operates at the boundary of the formal levels of government, but in partnership with all, this model can provide the necessary 'disturbance' to the current modes of operating. Current business approaches are often based on moving outside the comfort of existing patterns in order to achieve creative solutions.⁴⁶

Other funding options

In working Paper 11, Michael Verway discusses the impacts of globalization on the rural sector, and the need for maintaining what has been achieved by teleservice centres, so that they can act as a catalyst for small community rejuvenation and growth. He notes that telecommunications companies have a major corporate responsibility in this area, and suggests that they fund a foundation to at least partly fund their survival. This would be in their corporate interest, as the teleservice centres become the leaders in introducing their community and business sectors to new technologies, applications and e-business processes.

Such a foundation could be seen as a quid pro quo for corporations, who are on the receiving end of substantial industry assistance. These have been estimated to be \$10 Billion in 2002-2003⁴⁷ and \$16 billion in 1996.⁴⁸ If social capital development is to be taken seriously, it is surely necessary to provide some funding for community capacity building. This would allow some of the benefits of the information economy to flow through to the not for profit sector, and to sustain teleservice centres while they go about their business of delivering triple bottom line outcomes for rural areas.

It would also help to reverse the cost-shifting that has characterized much inter-governmental relations in recent decades, by reinforcing the national interest in some cross-subsidisation for access to vital telecommunications services.

Sponsorship by other corporate entities or by service clubs such as Apex, Lions and Rotary Clubs are other options. Other corporate arrangements and partnerships to assist teleservice centres could focus on the provision of software and recycled government computers, or open source software.

Impediments to teleservice centre viability in current models include the difficulty of attaining Deductible Gift Recipient status with the Australian Taxation Office, the short term horizons of previous funding, and their focus on financial rather than social outcomes, complex and time consuming reporting mechanisms, long delays in providing the funds (in particular with the RTCs), and overall initiatives that were politically driven from the top rather than community based. This brings back the theme of local determination of what sustainability should mean.

Partnerships

Working Papers 3 by Ian Crellin and 12 by Michael Verway look at ways teleservice centres can partner with government agencies, commercial firms, educational institutions, NGOs and others. Working Paper 10 by Gail Short provides additional examples of partnership outcomes. One major limiting factor for partnerships is the need for an advocate to negotiate on behalf of clusters of teleservice centres. Large agencies or companies will not deal with isolated centres. The other limiting factor is the 'chicken and egg' issue of funding horizon. Centres that have doubtful funding over a sufficient time frame cannot negotiate for long term contracts to deliver services. The institutions simply need more certitude for their own liabilities and business plans. Another issue for

partnerships is the need to document and manage small payments from multiple clients for service delivery. This is a technical issue, and technical solutions are available. However, this again is impractical without a critical mass of teleservice centres to make such an accounting system, along with its quality control, maintenance and infrastructure, cost-effective. Extranets make this possible, as they can embed a user pays principle for individual and corporate uses and clients. These solutions already exist, but are not practical to implement without broadband to the teleservice centre.

The teleservice centres in state networks have been significantly more successful in forming such partnerships. This reinforces the theme of networked support and advocacy as perhaps the most critical element for teleservice centre sustainability. Teleservice centres are not yet at a point where they have the resources to provide such a meta-service without assistance. However, a modest amount of funding for national coordination would allow them to achieve a much higher degree of sustainability over a relatively short time frame, given that they are already in place. Working Paper 3 by Ian Crellin points out that a coordinated approach has benefits for all stakeholders.

Government as anchor tenant

Currently, governments at all levels lack commitment for universal electronic service delivery. Therefore they have not looked at funding or mechanisms to do this cost effectively across all of government. There is a need for Key Performance Indicators or a Universal Service Obligation, led by the federal government, in relation to access to electronic government services. Without this, rural Australia runs the risk of becoming second class citizens. It is no longer tenable to say that paper or even telephone is 'equivalent service delivery'.⁴⁹ Already, a bank is being sued for not providing information in a form that can be incorporated into business software. Today more than previously, time is money, and rural Australia should not be placed at a distinct disadvantage in their dealings with government. It is not credible to tout the 'transforming' benefits of e-business and e-government on the one hand, and yet maintain that old communication channels are good enough for rural Australians.⁵⁰

The 'one stop shop' and a 'whole of government approach' have long been the 'holy grail' of integrated government. Teleservice centres are available for the task, but if they vanish the ground work will have been lost. The potential exists now for a nationally directed yet community-managed system for sophisticated service delivery. In return, government could become the key anchor tenant for teleservice centres. Crellin's paper identifies reimbursement of teleservice centres for government service delivery as the key institutional arrangement required to secure the long term sustainability of these centres. Over time, they could also become a valued resource for coordinating emergency response and digital citizenship activities, as part of 21st century nation and capacity building. It cannot be said that the teleservice centres lack vision.

In view of the Parliamentary report on cost-shifting, it must be noted that the teleservice centres do not currently receive payment for the assistance they provide to citizens wishing to access government services. Centrelink has an extensive set of agents in rural areas, and this again indicates a path forward.

While payments could be made to a central body, the proposal described above for a national extranet could handle the accounting and payments by documenting personal and online time spent with clients. A pilot study of the relative costs and effectiveness of such an arrangement would help to determine the benefits for governments. This proposal presupposes that central support for the

necessary business and management skills would be available through the quality control aspects of state and national networks.

Potential for future revenue raising

This section outlines the kinds of revenue opportunities for teleservice centres. It is based on the analysis above, that identified key issues and explained why a triple bottom line perspective is necessary and appropriate for teleservice centres in 2004. This section also takes a multi-functional and four tier approach, and recognizes that even revenue raising at the most local level can cascade or articulate or extend into other areas of achievement. All of the scenarios outlined below are either happening already, or possible today. They all accept a view of teleservice centres as embedded in all levels of community and governance, and providing support and benefits to all levels.

There are revenue raising opportunities on many levels. We consider these in relation to the four levels of community, regional needs, state/territory partnerships and finally federal partnerships.

Community level: Community identifies what the community needs, Bank, Community Newspaper, DTP, Secretarial Services for small business/clubs, Internet agent, Insurance Agent, take over small businesses that cannot be sustainable in their own right etc. Implementing and supporting new business opportunities (such as vineyards or other other value-added agricultural products) new initiatives – Superannuation funds for farmers (JB Ware speakers etc.) BASs/GST, craft shops, book exchange, video shops, – collocated with libraries and newspapers where previously existed.

Regionally – working together to provide new enterprises: Printing newspaper in colour, implementing regional agreements or managing regional programs, such as salinity, land use discussions, tourism, etc. providing regional news and events, promotions, coordination, services, such as professional education, research partnerships.

State/territory: Tourism, Education (Post compulsory/examination supervision/enrolments) Disability services etc. Need to negotiate on behalf of all – Central Support

Nationally – Partnerships, Co-location – Post Office, Centrelink, Telemedicine, Agriculture, Family Services, ATO, ACIS (Australian Country Information Service) etc. need to negotiate on behalf of all –

Working party needed to ensure a high level support group is available to ensure all government departments use Teleservice centres/or similar entities as their point of presence.

Further there is a need to ensure strong facilitation takes place to combine all like minded community entities prior to additional funding taking place in that location.

Local culture moves online – the creation of local cultural content is a key dimension teleservice centres. These opportunities can range from printing local newspapers and brochures about events to producing local histories. There are also strong possibilities for linking in with training and education in related areas, including graphic design, desktop publishing, and multimedia.

Example: A number of rural digital book publishers are now working closely with their communities to produce local histories, heritage guides and information about local environmental issues. These are the sorts of projects that teleservices centres can help to get started. They generate skills, local pride and self-confidence, and can become local industries.⁵¹

Local councils also are major producers of local cultural information, and teleservices can work in partnerships with them to produce online streaming of council meetings that can be seen across the

region, copies of minutes from council meetings, production of brochures and documents, as well as services.

Yet another layer of opportunity exists if teleservice centres are networked at a national level through high speed voice and data lines. They can then take part in nation wide information sharing, which is critical for the effective operation of democratic process in today's rapidly changing environment. This has triple bottom line benefits, as a nascent cultural industry can become a strong lure for new residents. One report in Appendix 4 describes the 'sea change' customer, the 'new lifestyle home business', the 'technology intensive farmer', the 'intentional community', and the 'new cultural institution' of museum-art gallery-tourism.⁵² All of these groups see high speed internet access as necessary infrastructure for rural living. An example of the resources available nationally to teleservices with high speed data access is FIBRE, the Film Industry Broadband Resource Enterprise.⁵³ This group assists filmmakers, wherever they may be, with post-production services. With broadband available, a filmmaker can access skilled services, or provide them.

With digital television now a reality, it is likely that a national community television station can become a channel for teleservices to offer courses or distribute locally created programs. These may well be about environmental information or issues of broad interest. A large screen in a teleservice centre can become the video conferencing centre, lecture theatre, remote town hall, or opera theatre.

The Community Television Association of Australia⁵⁴ is working towards nationally available community channel. Teleservice centres that are able to provide advanced services will be the equivalent of the first video store in town; their services will be in demand.

Business incubators – teleservice centres can offer the full range of support for small business, including call centres, accounting and secretarial services. The centres can also sponsor new business initiatives i.e., vineyards, walking heritage and environmental tours, etc. One way to do this is to provide the support over a short term such as 3 months and then renegotiate with a view to the new business becoming a paying customer as soon as possible.

Telehealth services – teleservice centres equipped with broadband can host consultations, business services for doctors, such as medical databases, professional training, videoconferencing for consultation with specialists, etc.⁵⁵

Even health has an electronic citizenship dimension and government obligations in a democratic society. Thus, there is a need to provide information to create informed discussion about proposed changes to current systems.⁵⁶

Legal services – and referrals, public information and support in accessing the legal system, online witness videoconferencing.

Online learning – the killer application is learning, not education per se, but learning of all kinds: every citizen that becomes more informed about the likely implications in Australia of the greenhouse effect adds to the efficiency and effectiveness of government overall. And the better these levels coordinate and collaborate, the better our chances of operating as a flock, as a complex adaptive system that sets a direction and is capable of steering itself towards those goals. India is a country now widely admired for its entrepreneurial spirit that is co-evolving with a democratic basis of governance. The Indians have gained powerfully in self-confidence as a result of their inventions, business skills and pure adventurousness, particularly in the realm of information technology.

Integrated government services, including referral, fee for service. This can provide benefits to governments as well as teleservices centres. To begin with, an integrated approach can allow

aggregation of research on online services, such as that now conducted by individual agencies. For example, the ATO, Centrelink and other agencies collect website statistics, analyse the use of online and traditional communication channels, runs focus groups of users, user testing, and a range of feedback and survey instruments. These are often duplicated by other agencies, or the information is not aggregated and shared effectively in ways that could support a whole of government approach. There is little data available on the potential cost savings if agencies were to each provide modest funds to support human assistance at the user end. The ATO is already able to identify individual users, and this could be used to provide a billing trail for user pays funding of ATO support. In this case, the 'user' would be the government agency, which would pay per transaction. This form of sophisticated but distributed support, across all levels of government and all agencies, could well prove to be more efficient and cost effective than the current 'silo' arrangements.

This approach would complement existing procedures rather than displace them, and would therefore entail minimal disruption to existing practices. The aim would be to encourage them to co-evolve and learn adaptively from each other, rather than put in place a massive attempt to supplant what is in many cases already working well. Thus, over time, it would benefit all government agencies if the public teleservice centres were assisting clients at the hardware and 'people ware' end with accessing all government services. These staff would be very well placed to provide aggregate forms of feedback that are currently not available, about client skills, user needs, technology in place, forms, and other issues. It would still require specialist officers from relevant departments, whether state or federal, to answer specific detailed questions about programs and legislation, etc.

This approach would facilitate the development of coordination and common standards, particularly between government agencies and programs.

Environmental support centres – offer services relating to sustainable housing, using resources from all four tiers: i.e., could distribute the CD's from the Greenhouse Office, or act as agent to sell them, could also be part of a state network about dealing with the impacts of the Greenhouse Effect on that state, and then on a regional level, being able to coordinate adaptive approaches, such as to agriculture, water rights, land clearing, etc. Finally, at a very local level, but coordinated through the others, being part of the complex arrangements for disaster preparedness, prevention, response, recovery, and evaluation, so that collective and individual learning can occur.

Data bases – of community resources and information, as well as wider research. The teleservices could act as online librarians (or co-locate with libraries), providing fast access and CD burning for individuals and groups. This could include research on many topics, and be supplemented by online access by the teleservice centres to distant information management experts. For example, access to national resource data banks, on film production or environmental management, could be negotiated and made available on a public right to know free subscription basis.

Disability support – resources, access to online services, portals

Part III Conclusions and recommendations

Most teleservice centres play a pivotal role in maintaining and providing numerous programs and services that would not survive if they were required to operate on a stand alone basis for example: If they must close their doors because they cannot be wholly dollar viable, the result will be a great loss to the community.

This report has described the problems that have led to more than 150 teleservice centres closing their doors. This has resulted in a net loss to their communities of many services, including banking, Centrelink, post compulsory education enrolment, support and training, provision of the community newspaper, email and internet at local call cost, tourism information, and much more. Innumerable examples have been presented in the accompanying working papers, and the appendices discuss in more detail related research that supports our conclusions and recommendations, as well as the policy context that has often limited the possibilities for teleservice centre viability.

The past 12 years can be thought of as Stage 1 of teleservice centres. We are now in Stage 2, and this requires a serious re-think. There is a need to shift from building to sustaining and maintaining. What is now needed is investment in the application layer to achieve the promise of the information economy and equitable, sustainable objectives for government electronic service delivery. To attract non-government partners the teleservice centres need permanent anchor tenants. This can only be achieved by governments taking a multi-layered approach.

If Recommendation 5.5 of the RTI is to be implemented, then sustainability of teleservice centres must be viewed from more than a narrow dollar for dollar basis. A triple bottom perspective recognises social, environmental and economic values and the ways they interact.

Because the survival of teleservice centres is closely linked to the overall health and welfare of rural regions, a whole of government approach is vital. The following recommendations are offered for each level of government, along with principles that all levels of government need to accept before this issue can be successfully resolved.

Recommendations for the Online Council

It is vital that governments recognize teleservice centres as their point of presence in rural areas. To this end, they should:

- Provision of secretariat services at a national level, ideally through an existing not for profit organization, to facilitate an whole of government approach to electronic service delivery that includes teleservice centres as agents.
- A national broadband enabled extranet available to all teleservice centres, funded for a minimum of five years.
- A whole of government approach that places teleservice centres within a broader regional development perspective
- A working group from all levels of government, including local government, to implement measures to ensure teleservice centre viability.
- Commission a cost-audit analysis for all of government coordinated support and funding for telecentres, based on triple bottom line accounting procedures, consistent with international work on the Global Reporting Initiative.⁵⁷

All of government approach

That all tiers of government identify projects in all agencies (such as electronic service delivery, greenhouse mitigation, disaster management) that can benefit from national coordination. Such programs should be implemented with a view to the role of telecentres as public access and coordination centres.

Regional Funding Groups

That Regional Funding Groups from all three levels of Government be established in regional, rural, and remote communities to develop funding applications with community representatives.

That the Regional Funding Groups auspice the funding applications in order to provide the funding body with a greater level of confidence about the potential outcome of the project; and

That all funding applications developed by the Regional Funding Group and relevant community representatives be focused on the development of the community, not on the technology that will provide that development.

Co-ordinated electronic service delivery

That the government work with the Online Council to facilitate the negotiation of online service delivery contracts for telecentres within an all of government approach. Recognising the role of governments as anchor tenants would be a significant step towards assisting telecentre viability.

Cross-subsidisation

That state and federal governments accept a level of cross-subsidisation as a principle for infrastructure development, so that remote telecentres are not unduly penalized in accessing higher bandwidth and government contracts. It should be recognized that some cross-subsidisation for infrastructure is balanced by cost-shifting in other areas.

Recommendations for the federal government

Grants and funding

That a five year tiered mode of funding be introduced to allow teleservice centre projects, particularly those in disadvantaged areas, opportunity to reach a sustainable mode of operation.

If necessary, a new grant process should be provided to provide funding for teleservice centre equipment and managers, for at least five years.

Such funding should be made in support of the roles of teleservice centres and the Rural Transaction Centres. The future of both types of centres should be considered from a triple bottom line whole of government perspective.

Special funding should be made available to assist with income producing initiatives for teleservice centres in remote or disadvantaged communities where necessary.

Where applicable, facilitation be provided to assist a community to obtain sustainability through identification of income producing projects, co-location and partnership opportunities and reduction and amalgamation of any duplicated services should these exist.

That the national government should identify a central point of control for all funding bodies once the projects have been fully funded to enable continued monitoring to take place over a much longer period time.

This body should maintain data and statistics that will provide valuable information for future funding initiatives to ensure new projects do not repeat obvious mistakes made by those who have gone before.

Further, this entity should have power to step in where necessary to assist major projects that have been heavily funded when sustainability and viability is at risk. Such action could save vast amounts of monies being lost due to the need of a small injection of funds.

A national coordinating body should be funded to provide a network for all Australian teleservice centres to provide:

- Lobbying power for new programs and initiatives that will introduce additional income through commissions and set payments from national government and private enterprise. These bodies will not negotiate with individual centres or in some cases with State Support bodies – they require one body to speak for all.
- Quality control and credibility on a national basis. At the present time there is a great deal of difference in equipment, opening times, networks and the standard of the 450 Centres operating throughout the nation.
- International networking support, including access to toolkits, research and best practice information about teleservices.

This will provide confidence that the teleservice centre network is a long term project with longevity guaranteed. It will also encourage the cross fertilization of ideas to grow community initiatives nationally, and facilitate the development of national networks (Internet, Video conferencing – one way and interactive) to allow new programs and initiatives to be delivered on a unified basis throughout the nation.

Universal service obligations (USO) for government service delivery

That the government set standards for USO in relation to access to electronic government service delivery. Setting federal standards would show leadership and could be part of the goals for Government Online. These standards should be implemented and monitored by the National Office for the Information Economy or its successor.

National infrastructure and competition environment

The following is required for teleservice centres to be able to meet community standards for electronic services:

- Broadband to teleservice centres with a minimum bandwidth for a small Telecentre of 750 kbit/s and 1.5 Mbit/s for larger centres.
- Telecentres need to be nodes in larger networks so that local people can access and share information from beyond their local district.
- Development of an aggregated national regional community online network. This is the necessary platform for a secure national interface for government and corporate electronic service delivery.
- An aggregated approach to the human and technical support for this network so that it can become efficient and achieve critical mass.

- IP based service provision [Internet and VPN] capable of supporting IP based applications across the regional Australian footprint
- IP based online applications encapsulated within a secure and reliable extranet to provide the network interface for telecentres that can be managed by a representative and professional support unit for the delivery of government and corporate services and the induction of the local business and community sectors to a participatory local ICT presence.

Other necessary technical/business requirements to achieve teleservice centre sustainability:

- ‘Smart’ procurement of carrier and Internet services.
- Demand aggregation via cable or wireless technologies at local community level through the Online Access Centre to embrace key local users of bandwidth.
- Demand aggregation across regions for connectivity to each Online Access Centre. A proportion of Teleservice centres will connect using terrestrial, while others will use 2-way satellite.
- Bandwidth-on-demand to cater for peak uses such as high-quality videoconferencing, audio and video streaming, etc.
- Interconnection of Telecentres via a secure IP-based Virtual Private Network (VPN) with sub-networks based on geographic/organisational/cultural principles.
- Concentrated access to the Internet through a minimum number of ‘pipes’.
- National/regional Data Centres and ASP (application service provider) model.
- Central web hosting.
- Standard Operating Environments for Teleservice centres.
- Secure remote access for users/members who need this facility.
- Extranets for external partners (e.g. electronic procurement services for communities).
- Cater for the inevitable convergence of ICTs and electronic media.

These need to be supported through central/regional network management, service desk and related administrative support

National Broadband Strategy

That availability of broadband to teleservice centres be a key performance indicator for the National Broadband Strategy. This would be consistent with the Strategy’s goal of ‘ensuring that all Australians have fair and reasonable access to broadband and its benefits, particularly with regards to price and location barriers’⁵⁸.

National community online grants

That the federal government initiate a national awards and ongoing grants program for community based initiatives in such areas as: community electronic networking initiatives, innovative infrastructure approaches for regional communities, digital community culture, broadband community content and support initiatives for non-profit organizations⁵⁹. This could be funded by telecommunications carriers based on their share of the national traffic.

Cost-shifting

That the government work with the states and territories to take incorporate a wider role for telecentres when responding to the findings of the Parliamentary report on cost-shifting. That this be done with the view to supporting more efficient service delivery to local communities while achieving cost-savings for all tiers of government.

Software

It is recommended that the Federal Department of Communications, IT and the Arts with Community TeleServices Australia explore the distribution of open source software and also negotiate free software to Community TeleServices Australia as managers of the national Teleservice centres project from Microsoft, Abobe etc.

That Community TeleServices Australia, under the agreement, sell the software at highly subsidized rates to the Teleservice centres and use funds accumulated to sponsor public workshops in using the new software packages.

Taxation and non-profit status

That the government develop a triple bottom line perspective on tax status for charitable organizations. This should include changes to the regulations for Deductible Gift Recipient status to allow telecentres to have tax exempt status for particular projects. The aim would be to facilitate rather than discourage the telecentres in their provision of public goods, and to allow them to operate in a more businesslike manner, i.e., an ability to manage and carry debt.

Support and facilitate the formation of clusters and online networks

That the federal government oversighting of telecentres include facilitation of network or cluster formation. These clusters could aggregate on a regional basis to share resources, training and support. They could then link together to join a statewide network, and also share national resources and learning as appropriate. The objective is to develop sustainable community structures with networks providing valuable support structures. Top-down approach may satisfy state IT policies and agendas but not necessarily deliver local sustainability.

The resolution of inter-network relationships re their impending role in telecentres is for secondary networks entering into a MOU with the principal network.

Distributed coordination

It is suggested that support for telecentres be coordinated across all four tiers of interest: local, regional, state/territory, and national. This could adopt the model of planning on a federal level, building through state agencies, and running them on a local level. This would give a clear role to each level of government and also provide suitable measures for accountability on each level.

Incentives for local government telecentre support

That state and federal government provide incentives to local governments to work closely with telecentres. These could include provision of accommodation, free electricity, computers, etc. Cooperation in the form of co-location with public libraries or other services should also be facilitated.

Recommendations for State/Territory Governments

Those states and territories that have not already done so should establish a central support unit that will provide:

- Ongoing support centrally acting as one voice for all Teleservice centres within the state
- Lobbying power for new programs and initiatives that will introduce additional income through commissions and set payments
- Training for staff
- Quality control and credibility on a State basis (the network will only be as good as its worst centre)
- Cross fertilization of ideas to grow community initiatives
- Marketing initiatives and assistance
- Establishment of networks (Internet, Video conferencing – one way and interactive)

Recommendations for Local Government:

Local governments and councils can support teleservice centres in the following ways:

- Provision of a vacant building that could be provided with free rent and maintenance
- Payment of electricity for the initial period of funding.
- Transfer of programs that the council has taken on due to need and non availability within the community to the teleservice centre. Example: photocopying, fax, printing of community newsletter, passport photos. In some instances the Local Council has also provided the photocopy machine to undertake these tasks.
- Transfer of responsibility for and co-location with the library. Libraries are generally only operated on a part-time basis in small communities. Once they are collocated with the teleservice centre together with the part-time salary, the hours of opening increase considerably. Many teleservice centres also open a book exchange to complement the library service, particularly with regard to visitors/tourists who only visit the community for a short period.
- Support for new initiatives, such as a Development Officer, will benefit both the Council and the community.

Recommendations for telecentres

- Seek assistance in obtaining appropriate standards of business accreditation.
- Pursue multi-level partnerships, sponsorships, and alternative sources of income, as outlined in the body of this report.
- Make use of or join into existing networks and clusters wherever possible, including infrastructure networks such as videoconferencing, satellite, distance learning, etc.

Endnotes and References

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- ¹ Regional Telecommunications Inquiry (RTI) Report, <http://www.telinquiry.gov.au/rti-report.html>
- ² Information about the Prix Ars Electronica is available at: <http://www.aec.at/en/prix/>
- ³ executive agency staff, personal communications with the author
- ⁴ see a full description at <http://www.aec.at/en/prix/communities/communities.asp>
- ⁵ The Global Reporting Initiative is a multi-stakeholder process to develop a common framework for sustainability reporting. <http://www.globalreporting.org/>
- ⁶ Appendix 1 lists the working papers and all contributors to this report. The papers are available at: <http://www.teleservices.net.au/papers/>
- ⁷ *Local Access Global Reach*, the report of the evaluation of the Tasmanian Communities Online program 1998-2002. Prepared by the Tasmanian Dept of Education in consultation with Glenn Appleyard and Tony Hocking.
- ⁸ For purposes of this report, all forms of teleservice centre, multipurpose teleservice centres, telecottages, online learning centres, Rural Transaction Centres and community technology centres will be considered holistically. Throughout this report, we will use the term ‘teleservice centre’ to refer to all of these.
- ⁹ Maintaining the Viability of Teleservice centres in Regional, Rural and Remote Australia. DCITA discussion paper, October, 2003. http://www.dcita.gov.au/Article/0,,0_1-2_3-4_117075,00.html
- ¹⁰ Regional Telecommunications Inquiry (RTI) Report, <http://www.telinquiry.gov.au/rti-report.html>
- ¹¹ See Working Paper 10 for a more detailed history of teleservice centres in Australia.
- ¹² Maintaining the Viability of Teleservice centres in Regional, Rural and Remote Australia. DCITA discussion paper, October 2003. http://www.dcita.gov.au/Article/0,,0_1-2_3-4_117075,00.html
- ¹³ See Working Paper 5 by Walter Green, ‘Analysis of Bandwidth Requirements of Telecentres’
- ¹⁴ From Working Paper 4 by Peter Farr
- ¹⁵ See especially the Commonwealth of Learning publication *Teleservice centres: Case Studies and Key Issues*, Vancouver 2001.
- ¹⁶ See <http://www.case.org.au>, projects. [The author discloses that she is on the CASE committee]
- ¹⁷ See Paul Bambury’s article A Taxonomy of Internet Commerce, http://www.firstmonday.dk/issues/issue3_10/bambury/
- ¹⁸ Nicholas Negroponte, *Being Digital*, see <http://archives.obs-us.com/obs/english/books/nn/bdintro.htm>
- ¹⁹ The Department of Transport and Regional Services has kindly made the Stage 2 evaluation of the Rural Transaction Centres available to the author.
- ²⁰ Education Network Australia <http://www.edna.edu.au>
- ²¹ Westlink http://www.newconnections.gov.au/Article/0,,0_2-1_1-2_5-4_90270,00.html

²² Australian Communities Online.

http://www.noie.gov.au/projects/access/Communities_Online/Aust_Communities_Online.htm

See also the demonstration portal at <http://zopedev.netc.net.au:8080/netc/www.netc.coop>

²³ Gail Short, Working Paper 10 on sustainability and facilitation.

²⁴ Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC), funded by \$8.3 million over three years.

²⁵ 5673.0.55.001 Regional Wage and Salary Earner Statistics, Australia - Electronic Publication
<http://www.abs.gov.au/Ausstats/abs%40.nsf/1020492cfc63696ca2568a1002477b5/693946a5f90463adca256e00007dc856!OpenDocument>

²⁶ Regional Telecommunications Inquiry (RTI) Report, <http://www.telinquiry.gov.au/rti-report.html>

²⁷ Year Book Australia 2002, Population distribution
<http://www.abs.gov.au/Ausstats/abs%40.nsf/94713ad445ff1425ca25682000192af2/fe3fa39a5bf5aa5aca256b350010b3fd!OpenDocument>

²⁸ Trevor Budge, 'Rural Australia: Change, Decline and New Directions',

Proceedings of the 1998 National Planning Conference

<http://www.asu.edu/caed/proceedings98/Budge/budge.html#INFO>

²⁹ Gordon Firth, 'What is the future for Australia's declining country towns?' August 31, 2000

<http://www.onlineopinion.com.au/view.asp?article=935>

³⁰ For a fuller analysis of the triple bottom line in relation to teleservice centres, see Working Paper 2 by Ian Crellin

³¹ Many stories of the role of teleservice centres in community building are available from the CTSA web site news: <http://www.teleservices.net.au/news.htm>

³² See Telecommunications Needs Assessment,
<http://www.doir.wa.gov.au/businessandindustry/78014A8643AD499E9504C8F1B0951AE3.asp>

³³ Friedman, Thomas. (2000). *The Lexus and the Olive Tree*. Anchor Books: New York.

³⁴ The National Office for the Information Economy is an advocate of the transformative impact of information technology on small business, see

<http://www.noie.gov.au/projects/ebusiness/index.htm#noie>

The statistics provided in Australian Communities Moving Online document that rural and remote communities have lower levels of access to the Internet. See

http://www.noie.gov.au/projects/access/Communities_Online/Aust_Communities_Online.htm

³⁵ Dr Mary Griffiths, University of Waikato 'Democratic Literacies: Technologies and a Commitment to the Civil.' 2nd International Institute of Regional Studies Conference : 'E-Governance: Regions, Devolution, Participation, Formation'. 13-14 November, 2003, Churchill.

³⁶ See The Victorian Landcare Gateway: <http://www.landcare.net.au>

³⁷ An overview of the extensive literature on this subject is in Appendix 3.

³⁸ Local Access Global Reach, the report of the evaluation of the Tasmanian Communities Online program 1998-2002. Prepared by the Tasmanian Dept of Education in consultation with Glenn Appleyard and Tony Hocking.

³⁹ Ibid, pg 2.

⁴⁰ The Area Consultative Committees are volunteer community based organisations, working in partnership with the Department of Transport and Regional Services, who funds their secretariat. Their role is to respond to issues in their regions and provide a vital conduit to government on local, social and economic conditions. They also identify opportunities, priorities and development strategies for their regions. <http://www.acc.gov.au/>

⁴¹ These are available at: <http://www.teleservices.net.au/papers/>

⁴² From Working Paper 1 by Andrew Cheel.

⁴³ Geiselhart, K. (2002) [Net Value: the use of the Internet by non-profit organisations](http://www.business.rmit.edu.au/kgeiselhart/publications.htm) School of Business Information Technology Working Paper Series, 2002
<http://www.business.rmit.edu.au/kgeiselhart/publications.htm>

⁴⁴ <http://www.fibre.org.au>

⁴⁵ NetC is one such regional portal, initially funded by Networking the Nation: <http://www.netc.coop>

⁴⁶ For case studies, see Pascale, Millemann and Gioja (2000), *Surfing the Edge of Chaos – the laws of nature and the new laws of business*. New York: Crown Business.

⁴⁷ Productivity Commission, Trade and Assistance Review, 2002-2003.

http://australianpolitics.com.au/issues/economy/04-01-23_trade-and-assistance-review.pdf

⁴⁸ Ches Baragwanath and John Howe, Corporate Welfare Public Accountability for Industry Assistance, The Australia Institute, October 2000.

http://www.tai.org.au/Publications_Files/DP_Files/DP34SUM.PDF

⁴⁹ Senior E-government officer at NOIE, personal communications

⁵⁰ Other aspects of federal policy relevant to teleservice centres are discussed in Appendix 3.

⁵¹ For more detail see Geiselhart, 2002, 'Reading the Bush: digital book production in regional and rural Australia', <http://doctordemocracy.net/publications.htm>

⁵² Gerard Goggin, Rural Communities Online. Telstra Consumer Consultative Council, February 2003.

⁵³ <http://www.fibre.org.au/>

⁵⁴ www.ctvaa.org.au (the author discloses that she is a member of this organisation)

⁵⁵ See 'From Telehealth to E-health: the Unstoppable Rise of E-health', A report prepared for NOIE in September 1999 on trends and policy issues in the evolution of electronic service delivery in the health sector in Australia,

http://www.noie.gov.au/projects/ebusiness/Developing/ehealth/rise_of_ehealth/unstoppable_rise.htm

⁵⁶ See Geiselhart, K. 2001. '[Health Policy Diagnostics: A New Role for Health Infomatics?](#)' Presented at the Health Infomatic Conference in Canberra, July 2001 and published in the Journal of the Health Issues Centre. <http://doctordemocracy.net/publications.htm>

⁵⁷ The Global Reporting Initiative is a multi-stakeholder process to develop a common framework for sustainability reporting. <http://www.globalreporting.org/>

⁵⁸ National Broadband Strategy
http://www.noie.gov.au/projects/framework/Priorities/Broadband.htm#The_National_Broadband_Strategy

⁵⁹ See <http://www.aec.at/en/prix/index.asp> and <http://www.afcn.org/opensource/>

Appendix 1: Working Papers Commissioned For This Report & List Of Authors' Backgrounds

The full text of all working papers is available at:

<http://www.teleservices.net.au/papers/>

Working Paper 1

Technical Considerations of the future sustainability of Telecentres

Andrew Cheel Coordinator SYP Community Telecentre www.sypctc.on.net

Working Paper 2

The Triple Bottom Line: The Rationale for External Support of Online Access Centres

Ian R Crellin

Working Paper 3

Partnerships between Online Access Centres and Governments, Industry and Others

Ian R Crellin

Working Paper 4

Achieving 'Triple Bottom Line' Outcomes for Community Online Access Centres

Peter Farr

Working Paper 5

Analysis of Bandwidth Requirements of Telecentres

Walter Green

Working Paper 6

Success and Failure Factors

Carol Hillsdon

Working Paper 7

Report on Maintaining the Viability of Online Access Centres in Regional, Rural and Remote Australia

Elizabeth Nunn

Working Paper 8

New Ways of Distributing Grant Monies

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New Ways of Distributing Grant Monies

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Ongoing Sustainability and Facilitation Issues

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Sustainability and Facilitation of Telecentres

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National Survey of Teleservice centres – their strategies for viability

Jeff Ridley and Bill Bandidt

Background of contributing authors and report committee members

Andrew Cheel Coordinator SYP Community Telecentre www.sypctc.on.net (WP1)

Andy Cheel worked for many years as a senior ICT Manager in South Australian Universities and now manages telecentre and ICT infrastructure development with local government in the Yorke Peninsula of South Australia. Andy has been able to combine a strong technical and organisational background with the delivery of informational age services in a regional community setting.

Ian R Crellin (WP2 and 3)

Ian has spent 35 years working in rural policy and community development, focused in recent years on the impact of advances in telecommunications and computing on the prosperity and survival of rural communities. Positions held include Director of Rural Community Policy and Senior Policy Adviser (telecommunications and rural development) before leaving the Commonwealth Government in 2001. He has been involved closely with the Telecentre movement since its inception and has served on both CTSA and CTSC (International) boards. He has published extensively on these subjects in Australia and overseas.

Peter Farr (WP4)

Peter Farr (Chairman, Peter Farr Consultants Australasia) is a management consultant specialising in the ICT sector, but also in regional economic development and cultural planning. He combines his academic qualifications in electrical engineering, applied science and economics with over 30 years experience with telecommunications carriers (in Canada and Australia) and the management consulting profession. He has undertaken extensive consulting work throughout Australia - a lot of which has focused on finding sustainable solutions for rural and remote areas of Australia. He undertook eight projects that were funded by Networking the Nation.

A highly relevant project completed in September 2003 was the development of a draft national strategy for implementation of higher bandwidth telecommunications/Internet services and sustainable Community Online Access Centres for remote Indigenous communities in Australia (including Torres Strait islands). A key challenge is how to make such centres sustainable. The project was undertaken for the Department of Communications, Information Technology and the Arts as a continuation of the Telecommunications Action Plan for Remote Indigenous Communities ('TAPRIC'). The objective of the project was to develop a national strategy for implementation of higher bandwidth telecommunications/Internet services and sustainable Community Online Access Centres for remote Indigenous communities in Australia (including Torres Strait islands). The deliverables included Toolkits for the Planning and Operation of Community Online Access Centres.

Peter presented a paper at the Pacific Telecommunications Council's conference in Hawaii in January 2004 based upon innovative work he has undertaken on IP-based Virtual Private Networks for the non-commercial sector, and the associated technical and non-technical support systems.

Dr Karin Geiselhart (main report, Appendices 3 and 4)

Karin is a Visiting Research Fellow at the University of Canberra and a Senior Editor for the US Journal of E-Government. She is also a committee member of CASE, a community group that helps other community groups with their computing needs. Prior to completing a PhD on electronic democracy in the public sector she was a journalist in the Department of the Prime Minister and Cabinet. More recently she was a post-doctoral fellow in electronic commerce at RMIT University and worked for a year at the National Office for the Information Economy, where she initiated and ran a project for local cultural broadband content (<http://doctordemocracy.net/creativecanberra>) and developed case studies on community connectivity for the publication Australian Communities Online. She has also co-authored a book on *Australia's New Aged* and has contributed to several publications on e-government.

Dr Walter Green (WP5)

Walter is a Director of ATUG and Communications Experts Group Pty Ltd. He has over 30 years experience in Telecommunications and IT Engineering projects. He has held senior executive positions in a telecommunication company and commercial enterprises.

His research and consulting activities have focused on projects relating to Telecommunications, IT, Software Engineering, and Management of Leading edge projects on behalf of clients.

He has undertaken consulting projects in a number of countries for Mining, Commercial Enterprises and Government Agencies. Some of the projects have required innovative solutions and he has been awarded patents for some them.

Walter is an Adjunct Professor at Murdoch University with Murdoch Business School Telecommunication Management and e-Commerce courses.

Carol Hillsdon (WP6)

Carol is currently the Eastern Victoria Region Project Manager for VICNET/State Library of Victoria. As Project Manager Carol travels and visits communities throughout Gippsland and the North eastern regions that have received Skills.net

Elizabeth Nunn (WP7 and 8)

Elizabeth was the Networking the Nation State Coordinator in Queensland for three years. She was then offered the opportunity to be a Networking the Nation project manager for the Local Government Association of Queensland. She was with the LGAQ for two years and managed three NtN projects concurrently – after securing \$6.4M worth of NtN funding. Before those Networking the Nation roles, she was the Queensland State Coordinator for the Institutional Investor Information Service, which was also a Commonwealth Government program. In 2004, she has commenced full-time PhD studies at Griffith University, however, she is still fully committed to community development, particularly rural community development, and I plan to continue being a community developer in some form or other for the rest of my working life.

Peter Jamieson [Manager of this CTSA project]

Peter is the Chief Executive Officer, NetC. Peter with community participation established North East Telecentre NET] one of Australia's first telecentres in 1993. NETC steadily grew into Australia's largest telecentre and needed to consolidate corporate processes to sustain itself whilst maintaining community participation so Peter steered NET to become Australia's first telecommunications co-operative - NetC www.netc.coop

Peter has been an active member of many community organisations and government advisory posts including Victorian Multimedia Taskforce, Commonwealth Governments Small Business Advisory Group and is Vice Chair of CTSA [Community TeleServices Australia] Peter is also the Executive Officer of CORR [Centre for Online Regional Research] - the research arm of NetC who CTSA commissioned for the development of this report.

Jeff Ridley

Jeff is the Executive Director of the Online Access Centre Association of Tasmania and prior to that role worked in a variety of roles in education and training with a break in full time employment in 1998 to complete a Masters Degree in Information Systems. Following this period of study he worked as a Research Fellow at the University of Tasmania, researching the uptake of e-commerce in the Tasmanian timber industry. He has published a number of papers in the Information Systems area and presented papers at international conferences.

Jeff has been Chair of CTSA since September 2002.

Simon Swan

Simon Swan's involvement with teleservice centres started in the early 90's when he has working with a SkillShare organisation in regional NSW providing training opportunities to the local community. In 1995 when he was elected as the foundation treasurer for ARTA (Australian Rural Telecentre Association) and maintained a position on that board until the association was wound up in 1999.

Simon, with a group of others delegates at the Regional Summit in 1999, was instrumental in the creation of the CTSA (Community TeleServices Australia) and has maintained an active membership of that board until today.

Gail Short (WP 9 and 10)

Gail Short currently works as a Consultant for Multipurpose Community Telecentres in the Asia/Pacific Region, her customer base being predominantly the United Nations International Telecommunication Union (ITU) for whom she has carried out numerous missions in the Asia/Pacific region, undertaken major speaking engagements in the eastern block, Arab states and Asia and conducted a number of work shops. Gail has also untaken work for UNESCO hosting delegations, participating as a member of an Expert Committees and undertaking speaking commitments where required.

In addition to the above she has worked for the Telephone Company of Thailand, Palau Telecommunications, Cocos (Keeling) Island Administration and Cornell University in a project

situation in India and participated as a member of the Microsoft Philanthropic Staff Global Network world expert committee.

Consecutively with this role, Gail has held, until recently, the role of Executive Officer, Community TeleServices Australia Inc. on a part time basis. During this period she supervised two national surveys of Telecentres and carried out vigorous lobbying in tandem with the CTSA Management Committee to ensure government was fully aware of the size of this national network (450 sites) and the difficulties many centres were experiencing with regard to ongoing sustainability and the urgent need that existed for ongoing support on a centralised basis.

In 1990 Gail was instrumental in calling for a review to find a new way to assist rural and remote students in their studies in WA. As an outcome of the publication produced, for which she was the research officer, Gail opened three Learning Network Centres in the Kimberly region in February 1993. It was immediately apparent to her that these centres could provide much more than education and within four years she had convinced the Management Committee to call these sites Telecentres and had opened 38 new locations and established a Central Support Unit. As Executive Officer of this organisation, she continued expanding this network and widening its programs and services until October 1999. She retired from the WA Telecentre Network and government leaving a network of 74 centres, a strong and vibrant Central Support Unit, and a Telecentre Management Board comprising predominantly rural and remote members. This work was recognised then, and still is today, as world best practice.

Michael Verway (WP 11 and 12)

Executive Officer, CTSA

Chief Executive Officer, Outback Telecentre Network Inc (OTNI) From October 2003 to February 2004, Executive Officer, Community TeleServices Australia

Background: - Banking career focused on risk management. This was an important experience in that the telecentres established were in communities that by all accounts could not survive because of the small population bases. Through sound management practices and continual consultations with communities, these have adapted to changing community needs therefore maximizing their services and income streams and minimizing failure rates.

Based in Broken Hill. The project Outback Telecentre Network Inc. includes communities in Far West New South Wales and northern South Australia

Appendix 2: Teleservice Centres No Longer Listed

The following centres are no longer listed when comparison is made between the 1999 Survey conducted by Teletask and the data compiled by CTSA Consultants, Computer Experts Group in 2002/2003.

New South Wales

Armidale NSW
Ballina NSW
Bega NSW
Bellingen NSW
Casilis NSW
Dunedoo NSW
Lismore NSW
Newcastle NSW
Tumbarumba NSW

Total: 9 sites

Victoria

Apollo Bay VIC
Bairnsdale VIC
Benambra VIC
Birchip VIC
Briagalong VIC
Buchan VIC
Cavendish VIC
Clunes VIC
Colbinabbin VIC
Corangamite VIC
Dargo VIC
Echuca VIC
Girgarre VIC
Goongerah VIC

Gunbower VIC
Heyfield VIC
Hopetoun VIC
Kingslake VIC
Lockington VIC
McIvor VIC
Moe VIC
Mornington Peninsula VIC
Otways VIC check
Paynesville VIC
Rawson VIC
Rochester VIC
Rushworth VIC
Toolleen VIC
Tubbut VIC check
Wimmallee VIC check
Yackandandah VIC

Total: 31 sites

Queensland

Barcoo QLD
Barambrah QLD check
Boulia QLD
Burnett Inland QLD
Cloncurry QLD
Hughenden QLD now an OLC
Inglewood QLD
Mackay QLD
Wondai QLD

Total: 10 Sites

South Australia

Eudunda SA check
Eyre Peninsula SA
Hawker SA
Kurungk SA
Mannum SA
Pt Augusta SA
Yankalilla SA

Total: 7 Sites

Western Australia

Mt Magnet WA

Tammin WA

Total: 2 Sites

Tasmania

Nil sites

TOTAL SITES CLOSED TO DATE: 59 SITES

It should be noted that not all closed sites have been located as some closed before 1999. For example we know that 128 sites were established by DPIE but only a few of these were found to be operating in an independent phone survey in 1999.

ADDITIONAL INFORMATION:

FORMER DPIE CENTRES TAKEN OVER BY WA TELECENTRE NETWORK

- A. The following DPIE sites may not have survived if they had not been onfunded by the WA Telecentre network as they only had 2 years start up monies.
These were: Beacon, Brookton, Greenhead (Leeming), Hyden, Katanning, Kondinin, Lake Grace, Merredin, Mingenew, Moora, Morawa, Narembeen
Perenjori, Southern Cross, Wongan Hills.
- B. 14 sites were operating as the Gippsland Network in 1999 and since this time 9 of these have closed – leaving 5 still operating. The 15 were: Rawson, Heyfield, Briagolong, Dargo, Bairnsdale, Paynesville, Buchan, Tubbutt, Benambra now all closed. Maffra, Bendoc, Orbost, Cann River, Swifts Creek are still operating.
- C. A document showing 29 initial centres funded under the Commonwealth Telecentres program is held by CTSA. Today 10 of these 29 have closed.
These were Walcha, Byron Bay, Batemans Bay, Port Macquarie, Young, Blackall, Maleny now an OLC, Tumby Bay, Wudinna, Dover, King Island, Cygnet, Wangaratta, Maffra, Camperdown, Mallacoota, Corryong, Wagga Wagga, Parks still operate. Lismore, Bega, Tumbarumba, McIvor, Birchip, Hopetoun, Apollo Bay, Cloncurry, Wondai, Cavendish have closed.
- D. Tasmania has assisted 3 of the original centres. These are: Dover, Cygnet, King Island.
- E. CTC-NSW has assisted seven Centres. Coolah, Coonabarabran, Coonamble, Gloucester, Lithgow, Tumut, Walcha.

CONCLUSION:

Most of the Telecentres received between \$50 000 and \$100 000 during the set up period (2 years).
If we assume 50% of each the amount lost on just the known figures has been:

29 sites @ \$50 000 + community contributions which cannot be calculated:	\$1 450 000
30 sites @ \$100 000 + community contributions	\$3 000 000

TOTAL:	\$4 500 000
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Using the same formula as above:

474 Centres established:	
237 @ \$50 000 + community contributions	\$11 850 000
237 @ \$100 000 + community contributions	\$23 700 000

TOTAL TO ESTABLISH NATIONAL NETWORK	\$35 550 000
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THE LOSS = 12.65% If this money had been put into a foundation it could have saved a number of other much needed centres in the future.

Appendix 3: Policy context

Teleservice centres in 2004: a policy conundrum for an ailing canary after a decade+ of operation

The process of examining the changing nature of the environment for teleservice centres is two-sided. It contains both the possibilities for their future sustainability and the risks of not taking action. In terms of a conventional SWAT analysis, this appendix looks at both the opportunities and the threats.

We first provide an overview of the argument presented in the main report, and then examine some specific policy setting that are particularly relevant to the viability of rural teleservice centres. This analysis will show that not only is federal policy inconsistent in relation to teleservice centres, but some policies and programs have the potential to diminish the competitive economic potential of rural areas.

Despite the RTI's⁵⁹ acknowledgement of teleservice centres, at the start of 2004, at least a quarter of the remaining teleservice centres operating without state support are likely to close in the near future. The CTSA⁵⁹ has identified 600 Teleservice sites that have been established since 1993. Approximately 150 of these have now vanished.⁵⁹ Research from near and far indicates that some cross-subsidisation for both funding and support is necessary if these centres are to continue to work with and for their communities, and indeed, those teleservice centres without central support are much more likely to disappear. A similar situation probably exists for other forms of teleservice centres, such as the rural transactions centres (funding finishing this year), the TAPRIC⁵⁹ program (funded but expected to become self-sustaining), and other online centres for learning or providing advice to citizens. NTN has funded a large number of centres over the past few years and these will also cease to be funded in the very near future. Thirty-eight of these centres are located in SA.

Regional Australia remains at a disadvantage in many ways. Not only are incomes lower on average than for metro Australia, but the gap is increasing.⁵⁹ Thirty-six of the forty poorest federal electorates are rural or provincial. This in itself makes it more likely that both instability and discontent will grow. Thus, non-metro Australia is less able to pay for the suite of skills and services of the online world, even if they are available. And often they are not, according to the RTI report. This discrepancy persists, despite repeated reviews and surveys of telecommunications in the bush. The social, economic and environmental evidence that is central to this report point to an

unquestionable minimalist position on the existence of teleservice centres. At the very least, it is imperative that they remain in place for the foreseeable future to provide a 'beacon' in rural Australia. Their viability could be considered in terms of a universal service obligation to provide citizens, consumers and business with an ability to participate in, benefit from and continue to learn about 21st century information and communication technologies. Anything less will effectively condone the creation of a two tier citizenry by exacerbating existing inequities.

This is not a trivial task: half the area of the continent contains only 0.3% of the population, and the most densely populated 1% of the continent contains 84% of the population.⁵⁹ The dynamics of globalization have seen many inland areas lose their livelihoods, as farms become larger and some small towns disappear or decline, with the exception of accessible coastal areas⁵⁹. One commentator has observed a trend (initially seen in the US) of country towns becoming low-rent havens for a 'new inter-generational underclass'⁵⁹. Given this situation, the importance of public access to telecommunications services, such as those offered by teleservice centres, is likely to persist indefinitely. Australia cannot afford to lose more rural and remote communities. Teleservice centres can provide access to technology hubs and demonstrate these hubs as a 'means to an end' that will allow them to provide post office, banking, library services, operate as a small business incubator taking over and providing many small programs and services that threaten to disappear from the town. Market forces do not work well where long term trends indicate inequality is increasing. Similarly, for teleservice centres to survive and attract new support, programs and services they must have guaranteed longevity. It is not possible these centres to attract such programs and services on the 'hand to mouth' basis in which many of them currently operate.

The wider context of change

Here we consider issues that extend beyond Australia's borders, but which are none the less influential. External issues relevant to teleservice centres include globalization and the potential of electronic commerce for rural industries, communities of practice and learning, the role of new technologies in relation to social capital, and concepts of democratic literacies as an element of capacity building. Sustainability implies self-management, and this in turn has requirements for ongoing learning and adaptivity. We will try to show how a scaled network approach for teleservice centres can provide the tools and skills for adaptive self-management.

Perhaps the topics that most readily spring to mind in relation to our changing global environment are terrorism and climate change. We do not address the former here, except to note that kinds of responsiveness and on the ground information that is essential in relation to natural catastrophe is equally vital in instances of human attack, in whatever form.

Historic government policy statements indicate the link between better telecommunications and rural economic sustainability has been recognized from the start of the 'information age', roughly the early 1990s. In 1997 the Information Policy Advisory Council (IPAC) made 23 recommendations for regional online services.⁵⁹ These recommendations could with little change be taken today as the starting point for effective policy, as they remain largely unimplemented. Their tenor is basically holistic, and calls for an integrated approach to regional development. They seek to 'break down the barriers between metropolitan and country Australia, and thus to create new futures for all Australians.' The report comes close to proposing a triple bottom line, and recommends an active government approach to the 'development and deployment of online services in regional and rural

Australia'. It calls for relevant online services and content, including online publishing and communication by users, including an overall strategy of 'ongoing training, skills development, and help desk facilities to regional communities of users.' The deployment of cost-effective 'fast packet-switched network technologies' is favoured, with 'flat rate, location independent pricing for all telecommunications services.' Other items on the IPAC wish list were 'integrated delivery of online services to regional and rural Australia', promotion of partnerships between government, communities and industry, demand aggregation and appropriate research, needs analysis, monitoring and evaluation of government rural telecommunications programs.

The gap between these ideals and the reality of telecommunications and other services in regional and rural Australia remains a challenge for governments at all levels. A great deal of funding has gone into programs such as Networking the Nation, but much of the outputs are at risk. Teleservice centres have shown they can be part of a valuable response to community and business needs. They have facilitated a modest song of connectivity in the outback. The stories in the accompanying working papers tell of the many positive outcomes, as do the stories from the Rural Transaction Centres. In some ways, these may be thought of as electronic canaries. If their song of rural connectivity and services fades, how viable can those communities be?

Technological evolution has a habit of catching up with its pioneers. Less than ten years ago, the concept of a national extranet based on Internet protocols might have appeared farfetched, particularly to optimists in government who might have assumed that the market-based provision of telecommunications infrastructure would soon render such a proposal obsolete. From a Canberra perspective, the Australian government has certainly progressed by leaps and bounds in the development of electronic service delivery. Electronic lodgement is now encouraged for taxation and is available for a range of social security transactions. The federal government is proud of its online achievements,⁵⁹ although it is notable that these do not generally involve democratic dialogue with government. There have been documented cost-savings to governments, both state and federal, and unforeseen bonuses such as the enhanced ability to detect fraud and track communications with clients.

Business, too, has steadily moved into electronic communications with governments. Substantial government investment in electronic commerce training, information, support, coordination, grants, and research has seen many businesses with good telecommunications take the leap into the information economy. Almost none of this expenditure has been aimed at the community or non-profit sector. The growing importance of the Internet and electronic commerce for rural areas has long been the subject of many case studies⁵⁹, but much of this wide brown land has not yet achieved anything like universal access to its benefits.

While Australian governments at all levels have made great progress in making all appropriate services available online, there are no specific performance indicators at the direction-setting federal level for accessing these services. Without commitment to accessibility, all that is possible is the provision of 'equivalent services', via mail, printed brochures, or a free telephone number. This creates a serious internal contradiction for the federal government: to say that telephone or post is an equivalent service in effect denies that there are any benefits to be gained from the new electronic means of integrated, coordinated communications. The door to the future is an irreversible path. A

five year old government report claimed that ‘the Internet is fast becoming a universal trading platform.’⁵⁹ If this is correct, then all those who trade in goods, services and social value creation require it to fully participate. If, on the other hand, older methods of exchanging are acceptably equivalent, then why is government rushing in to encourage electronic transactions and developing case studies on the benefits of broadband to small business?⁵⁹

Research indicates that rural people, if anything, have a greater need for electronic connectivity.⁵⁹ There is a positive relation between distance from a major centre and desire for an Internet connection⁵⁹. Those of us who can embrace the ease of document upload, without having to worry that a frugal 19.6 k connection will time out before it finishes, losing our data transfer. When carrying out complex activities (such as most of those that involve governments), we appreciate the functional redundancy of being able to both talk to a service centre and read online. This applies to our transactions with companies and learning institutions also. Soon, if the government’s plans for telehealth eventuate, consumers, or at least their medical providers, will need it for that area of life as well⁵⁹.

While urban dwellers are happy to pay for a second phone line, or a broadband connection, Australia’s persistent ‘tyranny of distance’ continues to be an obstacle for many in rural, remote and regional areas. Both cost and technical support inhibit equivalent effective use. In many cases, fast, always on access to the Internet through a dedicated line is still just a dream at any cost. For some, the added costs of peripherals and software to run applications such as fax, scanner, printer, photography, etc are just not viable. There is insufficient density of population to support a model based on on-your-own owning and understanding, much less the endless learning and updating.

The key elements for sustainability of teleservice centres are already well understood by government. They are not ‘rocket science’ as one working paper author noted. The following brief overview of related programs, taken together with the background discussion paper prepared by DCITA, provides ample evidence of the main elements of sustainability. Rather than advocating a new and costly program, which would itself have a finite life span, the informed position of the CTSA is to identify a suite of manageable adjustments that could be made to existing approaches. These need to be implemented together and accompanied by appropriate processes for governance, including review, transparency and reporting mechanisms that involve and are responsive to local communities and governments. In this way, successes in sustainability would be rewarded, reinforced and shared. These would require modest additional contributions from a broad range of stakeholders, but would provide a more resilient and cohesive platform that teleservice centres could use to grow their futures responsively.

A number of government policies are directly relevant to teleservice centres. Chief among these is a publicly available report on the outcomes of the information about Networking the Nation program and a non-public evaluation of the Rural Transaction Centres. Also relevant are the Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC), the National Broadband Strategy, the recommendations of the Estens (RTI) Report, the Creative Industries Cluster Study, Australia’s Country Statement for the World Summit on the Information Society, and various government documents relating to e-government strategic priorities and obligations for online service delivery. Another important perspective is a Parliamentary report on cost-shifting. We believe the sustainability problem for teleservice centres can best be addressed if it is seen as a true

whole of government issue, with compromises and contributions from all levels of government, as well as from the communities concerned.

Relevant Commonwealth policies and programs

These Australian policy and program documents show the ambivalence of the Commonwealth's approach to telecommunications. On the one hand, substantial funding has gone into efforts to develop infrastructure and assist community and regional development, digital culture, electronic commerce, online learning and electronic government service delivery. On the other hand, these efforts have generally been driven by either short term goals or a fragmented perspective that inhibits longer term evolution and cohesion. It can seem like many ingredients placed on a table, with bowls and pans nearby, but not quite mixed together to produce a sustaining meal.

While integration of government programs has always been an elusive policy goal, we believe it is possible to design in sustainability by gently assisting all stakeholders to take a slightly longer term perspective. The process of providing them with the feedback and information to do this could simultaneously create the very measures of planning, accountability and public reporting that have been found to be problematic for the NTN and RTC programs⁵⁹. An Australian National Audit Office Report found that both the NTN and RTC programs had shortcomings in their planning and evaluation stages. There is still no publicly available evaluation of either of these programs.

A statement of the outputs for NTN is available, but it did not seek to measure community benefit or obtain qualitative data on the impacts of teleservice centres⁵⁹. The NTN program was intended to 'to assist the economic and social development of regional, rural and remote Australia' and was, of course, much broader than the creation of teleservice centres, and encompassed a range of telecommunications infrastructure. Thus, it may be expected that the forthcoming evaluation of NTN being conducted by the Communications Research Unit in DCITA will seek to measure social and economic impacts, although this report also is not intended for the public domain.

The telecommunications environment

Australia is following the recommendations of the World Bank and other international economic advice, and privatising its telecommunications carrier to introduce greater competition. This process has not been a smooth one, as the nationalized carrier, formerly part of a universal service obligation for both postal and telephone services, has less commitment to provide equitable delivery to non-metropolitan areas. Telephony and data services have been cross-subsidised, but this is less viable for a fully commercial carrier. Making Telstra attractive to overseas investors is now a key aim for the company, partial government ownership and regulation notwithstanding.

Telecommunications Action Plan for Remote Indigenous Communities

The TAPRIC program is an important initiative, as its development has no doubt benefited from the lessons of NTN. It offers a useful and replicable model for the sustainability of teleservice centres. It recognizes and supports varying levels of readiness for advanced telecommunications services. It also encourages a community development approach to telecommunications and supports local

online content development. These elements are supported by the wider literature on online access centre sustainability.

Other important elements in the TAPRIC program are the emphasis on training and skills development, and demand aggregation for some centres with higher bandwidth. This is seen as necessary for them to provide advanced services such as online learning and health, and videoconferencing. This approach could become part of a wider broadband extranet, with channels for indigenous and other groups to place and distribute their content.

Government electronic service delivery standards

Australia is, of course, not the only country facing telecommunication service challenges for its rural areas. We are, however, facing a notable decline in services of all kinds to regional areas. While the loss of banking has received much attention, other services are also in decline.

As indicated above, government policy seems self-contradictory in the area of electronic service delivery. If the benefits exist, then there is an incentive for both government and citizens to access these services. If there are no demonstrable benefits, then why is so much government investment going into the commercial and business dimensions of electronic commerce? And why is the community sector being left out of this equation?

The key danger is that rural and regional Australia will become further marginalized by not having access to the technologies, services, learning and participation that are available to metro-citizens in their dealings with governments at all levels. This will exacerbate both the perception and the reality of a second class citizenship in the bush. A longer term risk is that these areas will become even more disillusioned with the 'central' government, and will not be as capable or cooperative in the event of a national emergency of disaster that requires open, trusting communications with a wider network.

Australia is, of course, not the only country facing telecommunication service challenges for its rural areas. We are, however, facing a notable decline in services of all kinds to regional areas. While the loss of banking has received much attention, other services are also in decline.

Current policy for government online has six key objectives⁵⁹:

- achieve greater efficiency and a return on investment;
- ensure convenient access to government services and information;
- deliver services that are responsive to the needs of individual Australian households, business and civic organisations;
- integrate related services;
- build experience, user trust and confidence in the use of new technologies; and
- enhance closer citizen engagement in policy formulation and processes.

The federal government in Australia currently lags behind some state jurisdictions and a number of international efforts in the area of closer citizen engagement.⁵⁹ A strategy for government online outlined four years ago has not yet been fully implemented.⁵⁹ The key objective was ‘for Government to become more accessible, flexible and responsive to everyone’. This was to happen by:

- improving public access to a wide range of government services, especially by people who live in regional, rural and remote areas or older Australians and people with disabilities;
- providing access 24 hours a day, seven days a week;
- reducing the cost of delivery of some government services;
- improving the quality of certain government services;
- increasing efficiency-saving tax payers' funds;
- reducing bureaucratic and jurisdictional demarcation to provide unified services based on user requirements; and
- encouraging growth of e-business, both business to business and business to government, and associated opportunities.

Teleservice centres could be a key element in helping to fulfill the parts of this strategy that remain unrealized.

National Broadband Strategy

Provision of broadband more widely in rural Australia is a goal of this national program. It has also documented the benefits of broadband to regional Australia.⁵⁹ However, the community sector is missing from this analysis, and the potential role of the existing teleservice centres in providing broadband services is not recognized. There does not seem to be an understanding that the various dimensions of broadband benefit might be synergized by a more organic view of how the various parts could contribute to the whole, via public access centres.

Digital Citizenship

This issue has been ‘on the table’ for the Online Council for some time, and the Federal government has made a commitment to ‘closer citizen engagement’. Several states have now taken the lead on this issue, with plans and programs to implement electronic democracy. This could become an important driver of rural government electronic interaction, if developed as part of a whole of government approach to regional development and more responsive and transparent programs and evaluation.

US-Australia Free Trade Agreement

The implications of this agreement for local rural multi-channel and community content are ambivalent. One analysis of the media aspects of this agreement indicates the Australian government’s ability to regulate multi-channel media will drop from the current 55% to 20%.⁵⁹ The definition of multi-channel is itself unclear, but could impact on the political willingness to support local content development or resist the import and distribution of US programs. This is relevant to teleservice centres as they are already moving in the direction of producing and distributing multi-

media content. This is the promise of convergent, broadband media, and any government policy or action that suppresses this will have a negative impact on their viability.

Creative Industries Cluster Studies and Action Plan

This project⁵⁹ could have the unintended outcomes of further disadvantaging cultural digital content in rural and regional areas and intensifying pressures to produce outward oriented media products which can be sold overseas. The CICS documents do not appear to address the need to stimulate the creative industries in non-Metropolitan Australia. Assistance through the action plan may favour existing players, rather than facilitate niches for non-standard content that caters to rural needs. This imbalance in turn could inhibit the communication of rural issues to metropolitan centres, so that the voice of regional areas becomes even more muted and marginalised.

However, these unintended outcomes cannot be documented or evaluated unless they are measured. In 1999, participants in the Regional Summit⁵⁹ called for a concerted focus on five areas:

- the improvement of physical infrastructure
- better cooperation between the spheres of government
- making up service deficits
- more flexible services
- leadership development and community capacity building

Teleservice centres have played a role in each of these, but particularly in the area of leadership development and community capacity building. If this community dimension is missing from current policy setting, the ability of new technologies to contribute to social capital formation will be limited.

Australian Communities Moving Online⁵⁹

The introduction to this report describes the importance of social connectivity working in tandem with technical connections. It shows awareness of the complex role that technology can play in the development and maintenance of bridging social capital, and notes that learning communities are now recognized as providing benefits that are much broader than formal learning opportunities. The case studies in this report also document the range of approaches Australian communities are taking to develop and sustain these online benefits. This report also shows that statistically, those rural, regional and remote areas with lower socio-economic standing continue to have substantially lower rates of access to the Internet than metropolitan Australia. It also notes that ‘the major challenge currently facing many communities in their transition to become smart communities is to take an integrated ‘whole-of-community’ approach to multiple ICT needs’. This report also highlights the growing importance of broadband: ‘As broadband technologies become more widespread in the corporate sector and in major public sectors such as health and education, communities will need enhanced telecommunications capacity to effectively communicate with these sectors. Only communities that have such capacity will be able to participate fully in innovative and sophisticated online health care, education, e-commerce and entertainment services.’

Evaluation of Tasmanian Community Access Centres⁵⁹

This review, conducted in 2003, will not be covered in depth as it was commissioned by NTN. However, this is a valuable document, comprehensive in its approach and review of other studies. It found significant benefits to the Tasmanian community for encouraging learning of all kinds, and for bridging the 'digital divide' and assisting lower income groups to become familiar with online technologies. Its findings were consistent with those of the evaluation of the RTCs, as it identified significant social and economic benefits. The investment by the Tasmanian government was found to have produced a return on investment of over 100% in terms of locally sourced goods and services, employment, volunteer hours, skills training, and access to employment opportunities for users. Benefits that were less immediately quantifiable were found in the areas of justice, health and social service budgets, and improved economic performance.⁵⁹ It also found that some users of the centres would eventually purchase their own computers and get Internet access at home, but would return to the centres for further training, support with upgrading software, and also for social interaction and the informal learning available.

The Tasmanian experience basically encapsulates the national experience with teleservice centres. It includes all the dimensions of support, social capital formation, online learning and economic benefit.

It is not possible in this report to consider the impact on teleservice centres of state and territory policies and programs. However, if the states that currently provide support units and funding for teleservice centres in their various guises were to withdraw, the survival of many of the remaining centres would come into question.

World Summit on the Information Society

Australia has been an active participant in the above process. The country statement for Australia recognizes the complex social interactions that underpin effective use of new communication technologies. It summarises Australia's objectives for the information economy and society as⁵⁹:

- Promoting social cohesion by ensuring that particular sectors and regions are not marginalised.
- Securing Australians and Australia's information economy against external and internal threats, and to promote Australia's interests in the emerging global information economy.
- Removing barriers to information economy development.
- Making the Australian government an exemplar in the use of ICT to improve citizen engagement, efficiency, and effectiveness of service delivery.

Teleservice centres have to potential to assist in reaching all of these goals.

Analysis and conclusions

This brief overview of some relevant federal communications policy setting indicates that the rhetoric and the reality do not always coincide. There is a need to recognize the role that teleservice centres have played and can expand in the information age.

Most of the teleservice centres were funded by the Networking the Nation program. They were driven by telecommunications policy following the partial privatisation of the national telephone

network. The key purpose of the NTN program was to provide infrastructure, although it is understood that the NTN Board always intended content creation to be part of the program.⁵⁹ but it turned out that this was not possible without community involvement in determining the use of the technology. The Rural Transaction Centres were an initiative of the Department of Transport and Rural Services, and an attempt to ensure electronic service delivery to all Australians. However, both of these initiatives have now reached the end of their funding cycles. The National Audit report on the NTN and RTC noted that their planning was inadequate. The future of both the teleservice centres and the RTCs is precarious. The TIGERS initiative between the federal government and Tasmania is also coming to a close. What is still needed is recognition of a key issue for sustainability of rural infrastructure: an all of government approach to service delivery, underpinned by universal service obligations to all citizens.

The impending collapse of the majority of remaining teleservice centres, teleservice centres and RTCs is evidence of the failure of all government approaches to date. Despite rhetoric about integrated service delivery, in 2004 there are no fully integrated services available to citizens. Where savings have occurred from online service delivery to technologically enabled urban centres, these have not been rolled into extending service delivery to less advantaged areas. A Parliamentary report⁵⁹ has documented significant cost-shifting to state but mainly local governments over the past 25 years. That report noted that some local government authorities are now hesitant to support applications for federal funding projects, as they know they will be compelled to take on infrastructure support, reporting or administrative functions without any direct funding for the associated costs.

The current mindset within governments leads to the policy conclusion that there is no economic argument for the delivery of services in rural areas. As the major national programs to provide electronic access in the bush wind up, several scenarios are possible. There could be even greater erosion of rural participation, confidence and relative economic and social well being. On the other hand, there is a clear opportunity and a defined need to finally acknowledge and address the obligation of all levels of government to provide services worthy of a first world country. Australia has the potential, given sufficient political will, to achieve significant efficiencies in this area while enlarging access to near universal coverage.

No government can afford to ignore these issues. If government support for rural information infrastructure at a community level collapses, it raises the question of whether governments can operate effectively in outlying areas. It is possible, and urgent, to reclaim the heartland and make it an equal partner in the present century. The denial of technical and human infrastructure implies that rural Australia is no more than a depopulated, drought stricken, flood prone, fire ravaged wasteland, part of our history rather than our future. Without sufficient commitment, the outback and some marginal rural areas run the risk of becoming an electronic terra nullius. The very legitimacy of governments as mediators and managers is at stake.

While achieving true integration across levels of government remains a daunting challenge, there is an option that offers the middle ground. As a precursor to a true whole of government approach to electronic service delivery, in the medium term (over the next 5 years) the federal government could pilot a coordinating agency to ensure accessible service delivery in rural Australia for all levels of government. The agency would provide an interface between government, the private sector and local communities. It would support the technical, legal, business and human skills and arrangements that would allow regional Australia to access government information and services on an equitable

footing with urban districts. DOTARS would be a suitable agency for this role, given the importance of these services for rural development. The agency would deal with departments individually and collectively, at state, federal and local levels, and negotiate contracts that would ensure medium term financing for the programs. Unlike the NTN and RTC programs, which were somewhat uncertain of what they hoped to achieve, this program could capitalise on their lessons and set out with clearer goals. It could set out to measure the success of streamlined and coordinated electronic service delivery from the outset, and provide collective learning for all partners. This is the broadband extranet proposal outlined in the main report.

It would, of course, be mistaken to assume that a holistic all of community and all of government approach benefits are only relevant to regional, rural and remote areas. Many of the promises of the knowledge economy and the networked society have not yet been fulfilled, even in our well-resourced cities. The need to reinforce the social fabric in rural areas is magnified, but is also present in urban centres. New communication media and technologies are not solutions in themselves, but tools that can facilitate or discourage local responses and participation. There is some urgency for capacity building in all Australian communities. This includes support for local culture and content, local health care, education and resource management, and citizen engagement in all dimensions of government planning, goal setting, evaluation and responsiveness.

The triple bottom line perspective of this report offers the opportunity to achieve ‘triple dipping’ by recognizing that as we become a knowledge based society, both the technical and human infrastructure need to be harmoniously synchronized. Teleservice centres could help to achieve this in a coordinated way. This would allow relatively minor investments to create substantial benefits on several levels at once. It becomes possible to set in place processes that facilitate community based economic development, better social cohesion, and local management of key resources. The alternatives are much less appealing.

Appendix 4: Related Research on Telecentres

The wider context of change

Here we consider issues that extend beyond Australia's borders, but which are none the less influential. External issues relevant to teleservice centres include globalization and the potential of electronic commerce for rural industries, the rise of intentional and electronic communities, the role of communities of practice and learning, how new technologies can contribute to social capital, and concepts of democratic literacies as an element of capacity building. Sustainability implies self-management, and this in turn has requirements for ongoing learning and adaptivity. The main report presents the case for a national extranet to support a scaled network approach to provide the tools and skills for adaptive self-management.

In this section we provide a brief overview of some research and literature relevant to teleservice centres and public access.

Public access to the Internet in Australia

A survey of public Internet access in Victorian libraries found that demand for these services was likely to increase, even though it was serving its intended policy goal of encouraging use of the Internet.⁵⁹ One view is that it is simply too soon in the evolution of online services to withdraw support for public access. An alternative view is that these services are as much an integral part of the social infrastructure as public libraries themselves, and that in a steadily changing technological environment, public access is the most efficient way of promoting and facilitating widespread use of the Internet. The Victorian survey covered both urban and country settings, and found support for public access widespread across the state.

Current dynamics influencing rural ICT development

The processes of globalization have both opportunities and threats for rural areas. One dimension is the 'winner takes all' outcome associated with globalisation⁵⁹. This implies that rural areas could miss out on new business, not just to metro areas, but to successful overseas entrepreneurs. Examples of Indian call centres and value-adding businesses were provided in the main report. But

the alternative interpretation is also possible: that rural areas will be able to seize their relative advantage and move forward with new products, services and business models. This trend has been observed in digital book production⁵⁹. Another important aspect of globalization is that ‘the more you globalize, the more your governance matters’.⁵⁹

Two other dynamics are noteworthy in relation to teleservice centres in rural areas. One is ‘network synergies’, also known as the Metcalfe Effect. This principle simply states that the value of a network increases exponentially with the number of users.⁵⁹ Like many other aspects of the Internet, there is a non-linear pattern which brings in unpredictability and unintended outcomes. These, however, can be harnessed productively. The importance for telecentres is that when the number of users is quite small, the benefits are very limited. Therefore, networks that are part of other networks are most likely to produce benefits. This principle is borne out in Part II of this report, which shows repeatedly that telecentres in a network are much more likely to be sustainable.

A final dynamic impacting on telecentres is the rise of the ‘creative class’, a term popularized by Richard Florida.⁵⁹ He provides evidence that a new group of creative workers is arising, including artists, writers, musicians, and craft and intellectual workers of all kinds. These groups are often heavily dependent on information technology, and are likely to ‘cluster’ in areas where salubrious settings coincide with good infrastructure. In Australia this is already happening along the coastal areas, such as the Northern Rivers of New South Wales, where sea changers and baby boomers have become internal migrants. While this bodes well for infrastructure and other forms of demand aggregation, it could also combine with the above-mentioned trend towards welfare and unemployment patterns in non-metro areas. A withdrawal from the provision of government services and public Internet and communications technology access could become a significant factor in exacerbating an existing socio-economic divide in these and other rural areas.

In the US, the concept of ‘agile cities’ has been used to describe the economic benefits that can arise from networking across sectors⁵⁹. It has been found to be effective in urban areas experiencing decay through industry collapse. Similar effects are described in the working papers prepared for this report, and in the literature on learning communities and social capital development through communication technology. While this leap to a more holistic way of approaching infrastructure and development can be a problem for rural communities, it is more often a problem of bureaucratic mindset and resource sharing.

International research

Best and Maclay describe a number of interacting factors for the sustainability of rural Internet access. The main ones are costs, revenue, networks, business models, policy, and capacity.⁵⁹ They say that in poor rural setting, this access must be seen as a public good, and be delivered as a community rather than a personal resource. It is important to harness the network effects described in Part I, and to make available business models that are appropriate to their settings. They advocate universal access policies, and mention time metered call charges as an inhibitor. For them, much of the solution to sustainability lies in training and capacity building, and aggregating markets and demand. One digital citizenship application that demonstrates community responsiveness is the ability for remote native Indian groups in Canada to lodge complaints against the government.

Applying their comments to Australian settings, it may be that bureaucrats can feel uncomfortable with hybrid models that have more amorphous ownership or management. This is partly because

these may not easily be incorporated into existing measurement and reporting procedures and are internally focused and inflexible. Australia's volume based pricing is also known to be an inhibitor for broadband access, and we do not yet have true universal access policies for broadband. Part of the reason may be the globalizing influence that has turned governments away from public provision of services. And, as described in elsewhere, Australia does not have a Commonwealth approach to electronic democracy, and lags behind other countries in this regard⁵⁹.

Evaluation of UK Online Centres

This evaluation⁵⁹ found that technology centres run by community and voluntary organisations are more effective in attracting socially excluded and digitally excluded users. The researchers suggested that the UK online centres should continue to focus on informal services and on encouraging interest and developing skills. They are particularly successful in bringing in users who have not been involved in learning. They also see the maintenance of the role of the community and voluntary sector as a key policy goal.

These findings have synergies with the working paper findings that Australia's telecentres benefit those who come seeking training in the use of new technologies, and that many of these centres are run on a not for profit basis. At the same time, total reliance on volunteers is very problematic, due to the range of business and management skills needed, as well as the need to continually update technical skills.

Urban access centres in the US

The US Pew Internet & American Life Project examined how five cities in the US were using online technologies for economic and community development⁵⁹. While not directly comparable to Australian rural centres, the best practices identified are broadly similar to those recognized as important for our telecentres. Their advice is:

Encourage bottom-up initiatives – successful programs tend to be driven by demand rather than pushed by technology;

Encourage catalysts – nurture and support committed individuals in the community that act as catalysts;

Encourage public funding – provide government funding for community technology;

Encourage 'bridging' among groups – form coalitions between advocates of low-income groups and people from the ICT sector for community development;

Encourage experimentation – try multiple approaches, learn from mistakes, tolerate ups and downs in programs, and even failure.

Many of these features are apparent in successful Australian telecentres, as will be discussed later in this section.

Internet Resources for Rural Communities

There are many tool kits and online resources for community development using the Internet. One of the more valuable ones has been developed by Frank Odasz, of Lone Eagle Consulting⁵⁹. Frank has visited Australia several times, and his resources are particularly valuable for sustainability because they incorporate electronic commerce and online learning as elements in a wider online community

development strategy. Thus, he offers an approach that is grounded in both economic and social benefits, closely resembling the triple bottom line proposed here.

The Lone Eagle site and others such as Making the Net Work (UK) also lead to the conclusion that there is probably little value in developing similar resources from an Australian perspective. The basic elements for community networks in rural areas, electronic commerce and online access centre sustainability are similar everywhere. It could be of more value to localize this information through a facilitating network that supports sharing of Australian experience in applying these principles, and encourages appropriate learning. For example, business skills relevant to Australia might include filling in BAS statements or finding out how to achieve tax efficiencies or charitable status.

Monash literature review of sustainability

A review of community Internet sustainability is being finalized by Monash University.⁵⁹ This is a valuable document that should be read in full, as it complements the CTSA report. Rather than summarizing this review, we will assume that it will be made available to the Online Council and other interested stakeholders. It provides an overview of key perspectives and concepts, and documents in some detail why infrastructure provision alone cannot address sustainability issues. Some of the issues it discusses are the ways people function in networks, not just groups, and how continuity of community is a key dimension of human definitions of sustainability. It considers various concepts of sustainability, and elaborates the importance of effective use, or use that is valued by a community, along the lines discussed by Gurstein⁵⁹. The review also emphasizes the importance of adaptive learning in response to change, and inclusive approaches, rather than a welfare concept of a 'digital divide'. This is important in relation to the discussion of Part I of government concepts of 'equivalent access', which run the risk of institutionalizing a second class citizenship for digitally excluded rural areas. It also discusses the literature on information and communication technologies in relation to social capital formation, which provides further illustration of the ways technology is embedded in its social dimensions. Requirements for sustainability, therefore, need to grow out of wider goals for a locality and its sponsoring/funding partners, rather than being seen as a short term financial outcome that can be mandated in a uniform way.

Rural Communities Online

This report was prepared for the Telstra Consumer Consultative Council by an award-winning telecommunications researcher.⁵⁹ This survey looked at three representative but diverse small Australian rural areas. It found online services were steadily growing in importance, and there was a strong preference for involvement in relationship formation and maintenance around communications, and for providers to be accountable or 'owned' by the community. Emerging areas of demand include interactive broadband service, reliable high speed data service. It documented the importance of non-government, non-profit groups and the community sector in meeting local community's telecommunication needs, and noted that 'A dedicated arms-length body, with substantial funding, is likely to provide effective, efficient and practical coordination of local telecommunications initiatives.'

Goggin said that success equated with meeting the individual's and community's needs. He advocated 'participatory, thoughtful telecommunications needs assessment, planning and strategy

processes’, along with ‘evaluation of progress against the various meanings and expectations of success.’ Convergent media is likely to ‘complement and contest traditional telecommunications options.’

The groups he studied were changing in their demographics. He described some of the emerging groups: the ‘sea change’ customer, the ‘new lifestyle home business’, the ‘technology intensive farmer’, the ‘intentional community’, and the ‘new cultural institution’ of museum-art gallery-tourism. His analysis should be examined in the context of the dynamics noted in Part I: will the rural low-rent welfare dependent rural group become the hired help for the new creative class? This may already be happening, reinforcing the need for teleservice centres where the public can manage their Centrelink payments.

He also looked at the relationship between telecommunications and social capital, and found that ‘Those communities able to best foster social relationships and institutions are also most likely to be able to organise and network themselves to get better access to telecommunications and online services.’ This indicates that some communities whose social capital is already depleted will benefit from cross-subsidisation of their public access centres to overcome the widening gaps between rural communities. He found that these access centres were important at a symbolic level also, as they demonstrate that the community is modernizing. He comments on the benefits of a community telco model, and its ability to enter strategic partnerships, as well as the importance of communities getting together to share costs and aggregate demand for bandwidth and other telecommunication services, and for building their ‘technical, social and economic capacity’.

Finally, his comments on success for rural telecommunications echo those of the Monash review, as he notes that ‘success needs to be determined by each community’. He quotes another researcher who says that evaluation of ICT initiatives has not been encouraged by NTN or other funding programs, and that these have lacked assessment and public discussion of their benefit or success. This is consistent with the findings of the National Audit Office report quoted in Part I.

Complex Adaptive Systems in rural ICTs

Some important theoretical perspectives inform this report and its recommendations. The shift from centralized, linear logic to a complex adaptive systems approach is a wave that has been sweeping scientific thinking for several decades. It is increasingly a practical and analytic tool in management and social systems analysis⁵⁹. The study of complex adaptive systems is now one of four priority areas for the Australian Research Council. Extensive research is already available on the applications of this new science to government. Much of the literature reviewed for this report implicitly recognizes this move towards non-linear approaches. These are typified by situations in which small changes have seemingly disproportionate or unexpected impacts. These are inherently ‘networked’ approaches that embrace scalability as an alternative to either hierarchical or static ‘one size fits all’ solutions. This is relevant to sustainability solutions for rural areas and also for the governance processes that such solutions require.⁵⁹