

# Northern Territory

## Remote Areas Telecommunications Strategy 2003 - 2008

Building a Connected Territory

Version 5.2

## Foreword

*Building a Better Territory, The Economic Development Strategy for the Northern Territory* provides the blueprint for the development of the Territory for the next few years. The strategy aims to ensure that all Territorians will share in the benefits.

This document focuses on our remote communities and how to deliver better telecommunications services to these areas to ensure that all Territorians can participate in the information age.

Telecommunications are enabling technologies. Living in remote communities no longer has to mean total isolation. Telecommunication that can provide voice, data and now interactive images can provide a sense of real contact for people living in remote communities.

Along with a sense of belonging is the ability to participate in the broader community. Broadband communications enabling high speed Internet and video capability will also enable the better delivery of Government services, more efficient delivery of services from the private sector and the opportunity for people living in remote areas to participate in the global economy.

I commend this document to you and look forward to positive progress over the next few years towards the goals outlined in this Strategy

Dr Peter Toyne

Minister for Communications

2003

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## Executive Summary

The provision of broadband telecommunications into remote areas of the Northern Territory is the most significant communications issue for this Government. The Commonwealth Government's Regional Telecommunications Inquiry found that poor access to communications is closely linked to 'broader social disadvantages'<sup>1</sup>.

Broadband, enabling the wide spread use of 'visual' communications, is of particular relevance to Indigenous communities whose culture is deeply rooted in visual and aural traditions and where the written word may have less impact.

Reliable telecommunication will also maximise the benefits of government services through greater efficiency and effectiveness of delivery and improvements in the availability of services.

The Government of the Northern Territory views the provision of suitable telecommunications services as a major social equity issue.

Currently, high capacity or broadband communications services into remote communities is patchy and where available, not affordable.

This Government has a goal to extend the benefits of broadband telecommunications to remote communities and promote innovative technology solutions to address the tyranny of distance and provide the means for people living in these areas to participate in the information age.

This will be achieved through strategies aimed at:

1. delivering equitable access to telecommunications infrastructure where necessary;
2. fostering a steadily growing demand for telecommunications services in remote areas;
3. encouraging partnerships to deliver improved telecommunications services and the growth of an innovative and competitive telecommunications sector in the NT;
4. developing mechanisms to more efficiently use what is already there and develop cheaper delivery options; and
5. fostering the development of appropriate delivery models for telecommunications services into remote communities, thus changing the way the communities relate to telecommunications services providers.

Each of the five strategies in this document are important in their own right, but to be successful all strategies will need to be implemented in concert. A holistic approach to the delivery of telecommunications capability and services is required and success will manifest as a steadily increasing demand for telecommunications services of all kinds from the Indigenous people in the remote areas of the Territory.

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<sup>1</sup> Connecting Regional Australia, The Report of the Regional Telecommunications Inquiry, Commonwealth of Australia, 2002.

Responsibility for the policy and regulation of telecommunications within Australia rests with the Commonwealth Government. Therefore in seeking the best outcome for the Northern Territory we will continue to lobby the Commonwealth Government, its agencies and national service providers in making policy and strategic decisions appropriate to the conditions and environment in the Northern Territory.

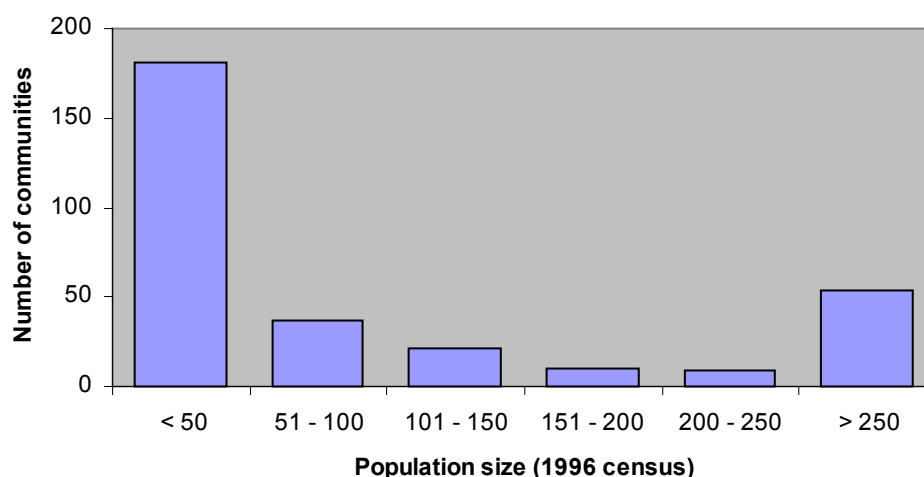
## Background

### Demographics

The Northern Territory is the least densely populated region in Australia with a total population of 193,000<sup>2</sup> spread over a region of 1,346,000 square kilometres. Around 68,500 people live in Darwin, and a further 70,400 in the other main population centres of Alice Springs, Palmerston, Litchfield and Katherine. Outside these main centres, the remaining 28% of the population live in small towns, communities and isolated locations.

The other significant feature of the Northern Territory is the size and distribution of its Indigenous population. The Northern Territory has the highest proportion of Indigenous population of any State or Territory. In the 1996 Census 45,000 or 28.5% of the total population of the Northern Territory was recorded as Indigenous, with the majority of these residents (approximately 70%) living in remote or very remote areas.

Further, these remote populations are distributed over a large number of small communities.



**Figure 1: Population size distribution of 312 Indigenous communities in the NT [Source ABS 1996 census data]**

This dispersed population of economically disadvantaged people makes the provisioning of telecommunications into these areas expensive and offers limited financial returns to service providers.

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<sup>2</sup> Australian Bureau of Statistics (2000) ABS Catalogue no 3101.0

## **Role of Government**

The primary responsibility for communications policy and regulation is with the Commonwealth Government. The Commonwealth Government administers the legislation and therefore receives all revenues resulting from the legislation. In addition the Commonwealth also receives income from windfall events such as the future sale of Telstra.

Through regulation, such as the Universal Service Obligation (USO) the Commonwealth Government determines access expectations. The Commonwealth has also provided funding through programs such as Networking the Nation and the National Communications Fund for the improvement of telecommunications infrastructure and services.

The Northern Territory Government and the private sector have equally important roles to play in delivering services and developing commercial arrangements that will fuel participation within remote communities.

The Northern Territory Government holds the Commonwealth responsible to ensure the necessary policy is in place and that funding is made available to deliver the necessary telecommunications infrastructure in remote areas of the Northern Territory that will make possible improved service delivery and higher levels of economic participation.

In general the Commonwealth Government's telecommunications policy is competition driven and it generally leaves market pressures to deliver the desired outcomes.

In the remote areas of the Northern Territory and other remote areas of Australia market forces have failed to deliver the necessary outcomes to remote communities. In general the markets are small and have a consequentially high per capita cost of delivery making the market place highly unattractive to the commercial providers. It has required Government intervention to ensure the delivery of even the most basic level of telecommunications service.

The Northern Territory Government has prioritised its efforts to influence the Commonwealth Government in its policy deliberations to deliver positive outcomes for the remote areas of the Territory. We will continue to lobby the Commonwealth Government and its agencies at all opportunities to incorporate into its policies the need to provide the same telecommunication solutions (infrastructure, product and services) as are available in metropolitan areas at the same price.

Success will come through cooperation by all parties, including the carriers, all levels of government, the private sector and the communities.

# Remote Areas Telecommunications Strategy

## *Purpose*

This document presents the Northern Territory Government's strategy for the delivery of improved telecommunications services for the remote communities of the Northern Territory. The Strategy supports Government's desire to deliver positive outcomes for all remote Indigenous communities by providing a direction to ensure the necessary telecommunications services are in place enabling the effective application of other Government initiatives.

It is the benefits of delivering suitable communications to the remote communities of the Northern Territory that this strategy will focus on.

The Northern Territory Government believes that reliable and affordable telecommunications services provide significant social and economic benefits. Suitable telecommunications services underpin the delivery of health, education, social and business services, particularly in remote areas where telecommunications services can have a multiplier affect.

Reliable telecommunication will maximise the benefits of government services through greater efficiencies and effectiveness of delivery and improvements in the availability of services. This will have a positive impact on the lives of those Territorians living in some of the remotest parts of Australia.

Recent Commonwealth inquiries concluded that:

- The remote communities of the Northern Territory are predominantly populated by Indigenous people and this group of people is amongst the most disadvantaged in Australia. They are more likely to be unemployed or receiving lower incomes, be less educated, be imprisoned or in care, be homeless or living in overcrowded conditions, mostly in rental accommodation, and be unwell or dying early<sup>3</sup>;
- Telecommunications services have the potential to assist in alleviating this disadvantage.<sup>4</sup> These difficulties are closely linked with broader social disadvantages faced by these communities<sup>5</sup>; and
- Higher bandwidth services into communities are patchy, with infrastructure simply not available in many cases and, where services are available, they are unaffordable for communities in most circumstances<sup>6</sup>.

Providing the benefits that accrue from having high capacity or broadband<sup>7</sup> telecommunications in remote areas represents the most significant

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<sup>3</sup> Summarised from the findings of the Telecommunications Action Plan for Remote Indigenous Communities, Commonwealth of Australia, 2002, p19.

<sup>4</sup> Telecommunications Action Plan for Remote Indigenous Communities, Commonwealth of Australia, 2002, p19.

<sup>5</sup> Finding 5.1, Connecting Regional Australia, The Report of the Regional Telecommunications Inquiry, Commonwealth of Australia, 2002, p9.

<sup>6</sup> Summarised from the findings of the Telecommunications Action Plan for Remote Indigenous Communities, Commonwealth of Australia, 2002, p37.

<sup>7</sup> Broadband (high capacity) is defined as telecommunications capable of delivering voice, data and interactive videoconferencing.

communications issue in the Northern Territory and is a high priority for this Government. Broadband telecommunications is of particular relevance to Indigenous communities whose culture is deeply rooted in visual and aural traditions and where the written word may have less impact. Broadband telecommunications will provide the means to deliver demanding visual applications to Indigenous communities.

The Northern Territory Government has already approved the Remote Telecommunications Strategic Planning Framework which defines the driving principles for the provision of telecommunications in the Northern Territory.

To ensure that all stakeholders have the opportunity to promote their views the Northern Territory Government convenes the Remote Telecommunications Forum (RTF) (the Forum) for all those who purchase telecommunications services in remote areas of the NT. The telecommunications industry provides similar advice through the Bipartisan Industry Group (BIG).

### ***Current Initiatives***

In recent years a number of initiatives from the Commonwealth and Territory Governments have provided significant benefits to remote communities in the NT.

The Commonwealth's introduction of Untimed Local Calls in Extended Zones (ULCEZ), providing local call cost for calls to adjacent zones and for Internet access has reduced the burden for many people and provided opportunities that previously were too costly to contemplate.

There have also been a number of Commonwealth subsidy programs aimed at making the purchase and operation of satellite services more affordable. These programs have provided some relief and improvement in telecommunications services in many remote areas of the Northern Territory.

The requirements imposed on Telstra under the Universal Service Obligation (USO) assure the provision of basic telecommunications services to remote areas. The Northern Territory relies heavily on the USO to underpin the provision of telecommunications services in remote areas and will continue to do so. The small market in the NT means we can not rely on competition to ensure appropriate telecommunications services are provided. We will argue strenuously to strengthen the USO, particularly in the event of the full privatisation of Telstra.

The Commonwealth Government's Networking the Nation (NTN) program is providing significant benefit through its funding program to many organisations and communities. The projects funded by NTN do not generally have a strategic intent but have been welcomed by the individual communities. Three of the larger programs, attracting the majority of the \$25m provided to NT projects, are the Local Government Association of the NT series of projects, the Electronic Outback Project (EOP) and the Outback Digital Network (ODN). These projects benefit the remote communities they

service, with ODN providing significant improvements in the terrestrial telecommunications infrastructure.

The Rural Transaction Centres (RTC) program funded by the Commonwealth Government Department of Transport and Regional Services (DOTRS) focuses on the delivery of public and private sector services to communities. A number of NT communities have applied for RTC with several operational at this time.

The Northern Territory Government has also implemented significant programs to improve the delivery of services to remote NT communities. The Department of Employment, Education and Training (DEET) has funded and implemented the Learning and Technology in Schools (LATIS) project that provides ICT to every school in the NT. There are approximately 85 remote schools that now have Internet access, e-mail and the benefits of learning with ICT technology. Through funding assistance from the Commonwealth's National Communication Fund (NCF) DEET is now providing interactive distance learning through two-way satellite technology, which will extend the services of School of the Air.

The Department of Health and Community Services (DHCS) has acquired about 200 two-way satellite services for approximately 70 remote communities. These satellite connections provide Internet access and e-mail for remote clinics and staff.

The NT Police have an active policy of providing data connections, wherever possible, to remote Police Stations. Whilst Police is one of the few agencies that is prepared to meet the costs of high speed data connections, such connections have not been possible in all required locations.

A more detailed description of these programs is provided at Appendix D.

Each of these initiatives has appropriately focused on the delivery of the primary agency or organisation specific applications. This has led to a number of solutions with little across government coordinated strategic management of the outcomes.

### ***Scope for future initiatives***

Telecommunications, as an enabling technology will provide the basis for the delivery of outcomes from a number of Government programs under way.

The Government's wish to develop videoconferencing to enhance government service delivery in a number of areas from justice to health and education is highly reliant on having reliable telecommunications service delivery capacity in place. Indigenous economic development is a key element of the 'Economic Development Strategy of the Northern Territory' and it is generally recognised that telecommunications will play a key role in achieving the desired outcomes. Telecommunications and information technology are integral in delivering the objectives defined in the Learning Lessons review and the Learning and Technology in Schools and Interactive Distance Learning programs are contingent on having reliable and affordable telecommunications in place.

It is the outcomes from these and other programs that will deliver real benefits to the remote communities of the Northern Territory. And it is these benefits that the Remote Areas Telecommunication Strategy aims to enable.

The Remote Areas Telecommunication Strategy focuses on five key strategies. The five strategies detailed in this document are important in their own right, but all strategies will need to be implemented in concert. To be successful a holistic approach to the delivery of telecommunications capability and services is required. Success will be heralded by a steadily increasing use of telecommunications services in the remote areas of the Territory.

Whilst there are approximately 700 identified Indigenous communities and locations throughout the Territory, approximately 200 of these have a population of 50 or more persons (about 85% of the Indigenous population living in remote areas). It is these 200 permanent communities that are the focus of this telecommunications strategy.

Infrastructure development is required in some areas to enable the delivery of reliable broadband telecommunications services. The commitment to achieve this. Associated costs in developing communications in these locations is significant. For this reason a staged approach will be taken more.

Infrastructure development will focus by necessity on terrestrial infrastructure. This is not to advocate terrestrial infrastructure as the only means of providing telecommunications services as the government believes that there will always be a need for a mix of delivery mechanisms as each is suited to different applications.

As funds are targeted and acquired we will extend the reach of our remote communications capability.

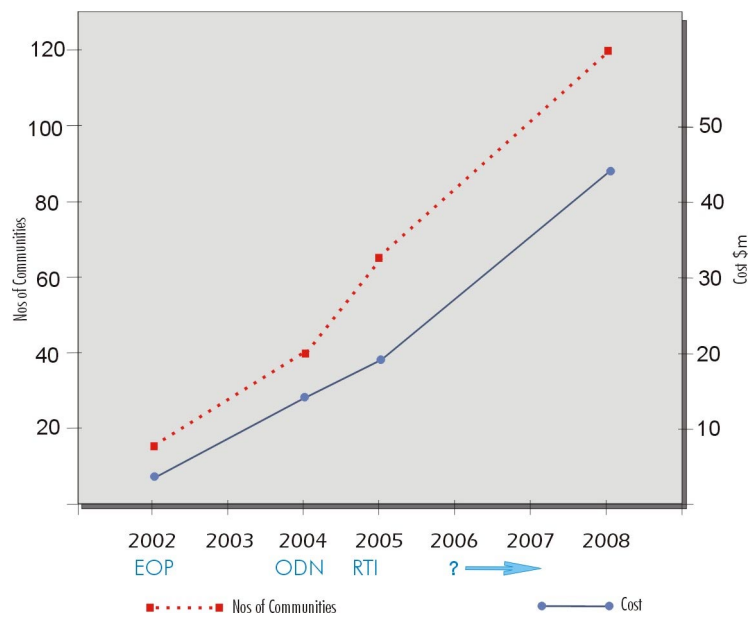
Currently the Electronic Outback Project (EOP) reaches 14 communities across the Territory. The Outback Digital Network (ODN), the second of the major NTN funded projects, is targeting more than 25 remote communities, commencing in 2003. These two programs are important first steps towards the desired outcome of improving the use of telecommunications by Indigenous remote communities.

Further funding from the Commonwealth through the Commonwealth's response to the Regional Telecommunications Inquiry and the Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC) may provide the means to reach further communities targeting those communities with more than 150 people. This will bring the total to approximately 66 communities, by the end of 2005.

Further extension of capability will be undertaken as the communities' capacity to sustain the services is developed and the resources become available. By 2008 we hope to have a total of 120 remote communities (about 80% of the Indigenous population living in remote areas) regularly using advanced communications, demonstrating a steady demand for more.

When	Target / Total
Today [EOP]	14 / 14
2004 [ODN]	24 / 38
2005	28 / 66
2008	55 / 120

This will require a significant effort and will necessitate lobbying the Commonwealth Government for an equitable share of any further sale of Telstra to fund any infrastructure development required and associated programs to improve demand for telecommunications services from the remote communities.



**Figure 2: Planned implementation for the delivery of telecommunications services to remote communities in the NT**

## ***Governance of the Strategy***

The NT Telecommunications Strategy and Plan is a five-year plan. It will be reviewed annually or more frequently if circumstances require, such as the sale of Telstra.

The Strategy will be driven by a steering group of key NT Government agencies.

The NT Remote Telecommunications Forum and the Bipartisan Industry Group will provide advice and feedback to Government on the development of the Plan and on the outcomes outlined in the Strategy. The Forum will also advise on the monitoring of the implementation of the plan.

Annual reports on the progress towards the outcomes detailed in the Strategy will be provided to Government by DCIS.

# Remote Areas Telecommunications Plan

## ***Vision***

Make affordable and reliable ICT services accessible.<sup>8</sup>

## ***Goal***

To extend broadband telecommunications infrastructure to remote communities and promote innovative technology solutions to address the tyranny of distance.<sup>9</sup>

The Northern Territory Government aims for the people living in remote communities in the Northern Territory to have every opportunity to participate in the information age.

Success will see a steadily increasing demand for telecommunications services of all kinds from Indigenous people in the remote areas of the Territory.

This will be achieved through the following strategies:

- *Equitable access*: Promoting the development of telecommunications capacity in all permanent remote communities of the Northern Territory;
- *Driving demand*: Fostering a steadily growing demand for telecommunications that will benefit the communities;
- *Developing Partnerships*: Collaborate with and encourage partnerships between the telecommunications industry, the private sector and government bodies to maintain the ongoing delivery of improved telecommunications services and the development and growth of an innovative and competitive telecommunications sector.
- *Efficient Delivery*: Foster the development of cheaper service delivery options; and
- *Community Delivery*: Foster the implementation and development of appropriate delivery models for telecommunications services into Indigenous communities.

These strategies are designed to deliver broadband capacity to remote communities more efficiently, simplify the experience for community members and create a more pressing need for telecommunications. Ultimately it is hoped this will lead to service provision that are self-sustaining and delivers the desired benefits to communities.

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<sup>8</sup> Building a Better Territory, The Economic Development Strategy for the Northern Territory, Northern Territory Government, June 2002, p34.

<sup>9</sup> Building a Better Territory, The Economic Development Strategy for the Northern Territory, Northern Territory Government, June 2002, p34.

## **Strategy 1**

### Equitable Access:

All Territorians have the right to equitable access to telecommunications products and services.

Infrastructure must not be allowed to be the limiting factor in the provision of equitable services. Whilst infrastructure is one of the keys to enabling Territorians in remote areas to participate in all the benefits of the information age this strategy is not advocating a 'build and they will come' philosophy. This strategy is about ensuring that future generations of Territorians will have the means to fully participate in the information age. This is their right, one they are sure to demand.

This strategy is about looking forward and planning for an expected substantial take up of telecommunications services in the remote areas of the Territory, as a new generation of young Territorians seeks to take their place in an electronic society.

With equitable access comes the opportunity for all Territorians to benefit financially and socially.

The outcomes we seek are:

- (a) the delivery of appropriate telecommunications products and services to the remote areas of the Territory at the same price, within two years of being introduced into urban areas of Australia. This is the basis of any proposed changes to the Universal Service Obligation; and
- (b) infrastructure development where necessary to ensure quality high capacity telecommunications in 120 remote communities in the Territory, over the next five years.

## Actions

### EQUITABLE ACCESS

<b>Action</b>		<b>Responsible Organisation</b>
1.1	Coordinate the delivery in a phased approach, of broadband capable communications infrastructure to all permanent remote communities with a population of 120 or more. The first tranche of communities (approximately 50 of the largest communities) will be targeted for completion by 2005.	DCIS DCDSCA
1.2	Work closely with the Commonwealth Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC) Task Force to deliver on the strategies relevant to the provision of access and delivery of services and products. The Strategies are summarised in Appendix B.	DCIS DCDSCA
1.3	Maintain a watching brief of the future sale of Telstra with a view to developing a detailed lobbying strategy to target funds resulting from the sale.	OTD DCIS

## Monitoring

	<b>Performance Indicator</b>	<b>Verification</b>
1.1	Number of communities with operational broadband communications measured in each 12-month period.	Annual data from industry, RTF and DCIS
1.2	Delivery of outcomes defined in the Action Plan.	Status reports from TAPRIC, OC, OCO and OCRCWG
1.3	Lobbying strategy agreed to by Government.	Government approval to proceed

## Strategy 2

### Driving Demand:

Currently demand in remote communities for telecommunications services is low. Many people strongly believe that there is substantial latent demand in Indigenous communities, but lack of information, poor access to infrastructure, and lack of affordable services have to date constrained demand.

The opportunity to participate in the information age is dependent on having the appropriate means in place. Telecommunications infrastructure, computers, faxes, and videoconferencing equipment are all essential elements. Whilst there is significant infrastructure already in place, there is still much more required.

The Commonwealth Government has funded a number of projects that provided infrastructure and equipment to some remote communities. The national programs of the Unbundled Local Calls in Extended Zones (ULCEZ) and the Universal Service Obligation (USO) have reduced the cost of some basic telecommunications products to an equitable level, leading to better take up of services. Reducing the cost of broadband services to remote areas is key to improving demand for these services.

With the infrastructure and equipment in place and the cost barrier reduced widespread demand for telecommunications services will come when there is an understanding of what is possible and how such services can fulfil a need. Much of this is through information and education. However evaluating the potential demand from people in remote Indigenous communities is fraught with difficulties as there is no appropriate historical data to refer to.

Government is taking a leading role by improving the delivery of Government services online. The development of appropriate content will provide many people in remote communities with a reason to connect to the Internet.

The outcomes we seek are:

- (a) a high level of understanding and knowledge about consumer rights and responsibilities in the use of telecommunications services by residents of remote communities;
- (b) content and applications readily available that appropriately target Indigenous remote communities;
- (c) improved use of telecommunications services in remote areas by all tiers of government; and
- (d) the better delivery of government and private sector electronic services.

## Actions

<b>DRIVING DEMAND</b>		
<b>Action</b>		<b>Responsible Organisation</b>
2.1	Promote the routine use of innovative electronic services by Territorians living in remote areas to do business and to participate in community matters.	DEET DCDSCA DCIS
2.2	Develop and publish information tools to aid communities in obtaining the best value for money telecommunications services.	DCIS DCDSCA
2.3	Work with telecommunications service providers, Commonwealth agencies, ATSIC, Land Councils and other peak bodies to develop policy, and develop and implement awareness raising projects and campaigns in communities.	DCDSCA OIP DCIS
2.4	Develop a plan to drive Government and non-government use of videoconferencing to provide efficiency gains in service delivery to remote areas and act as a catalyst for its uptake by communities.	DCIS DCDSCA
2.5	Progressively increase the range of NT Government services and transactions available online.	DCIS
2.6	Other initiatives identified by agencies, RTF and BIG.	Agencies RTF, BIG
2.7	Promote and facilitate the use of existing government facilities and services in remote communities.	DEET DCIS DCDSCA

## Monitoring

	<b>Performance Indicator</b>	<b>Verification</b>
2.1	Level of use of services.	Annual data from industry and government sources including ABS.
2.2	Telecommunication bulletins published by October 2003	Document available and circulated.
2.3	Number of services available.	DCIS data.
2.4	Increased uptake of videoconferencing by government agencies.	DCIS data.
2.5	Number of government services available online.	Government data.
2.6	Performance indicators as appropriate.	Appropriate sources.
2.7	Number of facilities and services available for community use. Level of use.	NT agency data.

### Strategy 3

#### Partnerships:

Through partnerships within the telecommunications industry sector and more broadly through the community we can leverage on what we have or acquire, thereby maximising the benefits.

The Northern Territory Government will foster partnerships to deliver on infrastructure development, content development and information and learning dissemination.

The outcomes we seek are:

- (a) an NT wide coordinated approach to securing funding for telecommunications solutions; and
- (b) the cooperative development of content and applications appropriate to remote communities.

#### **Actions**

<b>PARTNERSHIPS</b>		
<b>Action</b>		<b>Responsible Organisation</b>
3.1	Promote the establishment of consortia, and in collaboration with CRCs and Centres of Excellence develop content of value to remote Indigenous communities.	DCIS
3.2	In collaboration with the RTF, CRCs (such as Desert Knowledge), Commonwealth bodies (such as TAPRIC) and telecommunications providers, identify technical and business solutions that can provide world-class telecommunications services to all parts of the territory at affordable prices.	DCIS DCDSCA
3.3	Other initiatives identified by agencies, RTF and BIG.	Agencies RTF, BIG

#### **Monitoring**

	<b>Performance Indicator</b>	<b>Verification</b>
3.1	Increase in the number of programs developing content.	Industry and Government data.
3.2	New opportunities identified.	NT and Commonwealth reports.
3.3	Performance indicators as appropriate.	Appropriate sources.

## Strategy 4

### Efficient Delivery:

The barriers to the uptake of telecommunications have often been limited by lack of infrastructure, but just as often by the high associated cost. Costs have been reduced through various subsidies and other programs initiated by the Commonwealth Government as part of the Social Bonus Package. However government agencies are still confronted with significant charges for appropriate access.

The outcomes we seek are:

- (a) reductions in the total cost of remote telecommunications to government through the aggregation across agencies and all tiers of government of demand for services; and
- (b) reductions in total costs to the community through the leveraging of government contracts for telecommunications services.

### **Actions**

<b>EFFICIENT DELIVERY</b>		
<b>Action</b>		<b>Responsible Organisation</b>
4.1	Promote the formation of alliances of Local and Community Councils to aggregate their demand and access affordable telecommunications infrastructure and services.	DCDSCA DCIS
4.2	Develop strategies to aggregate demand across NT government agencies and potentially local government and Commonwealth agencies.	DCIS DCDSCA
4.3	Develop strategies to cluster NT Government agencies telecommunication service agreements to facilitate the aggregation of their requirements.	DCIS DCDSCA
4.4	Develop initiatives to provide better services to remote communities by leveraging whole of government telecommunications contracts in partnership with communities.	DCIS DCDSCA
4.5	Other initiatives identified by agencies, RTF and BIG.	Agencies RTF, BIG

## Monitoring

	<b>Performance Indicator</b>	<b>Verification</b>
4.1	Increase in the number of organisations accessing aggregated services.	Industry and Government data.
4.2	Number of agencies agreeing to aggregate their requirements.	DCIS and Commonwealth data.
4.3	Number of clusters.	DCIS data.
4.4	Review of contracts undertaken by September 2003.	DCIS report.
4.5	Performance indicators as appropriate.	Appropriate sources.

## **Strategy 5**

### Community Delivery:

Remote Indigenous communities are confronted with a number of issues, not generally found in other market spaces. A lack of understanding of rights and consumer responsibilities unnecessarily complicates the experience with telecommunication service providers for many community members. Difficulties with language differences and unfamiliarity with the processes makes tasks such as applying for services problematical.

Suitable assistance is often difficult to obtain for community members as it is often provided by people who are not trained for this task, it is not within their job description and are not paid to do it. The local council frequently tries to fill the gaps but workloads often limit the level of assistance available. A single face or organisation in the community who acts as the point of contact with providers and assists community members to overcome the issues will provide a targeted and valued service to many remote communities. Such organisation could also act as brokers and facilitators for telecommunication organisations, government and private sector providing significant benefit to the community.

The outcomes we seek are:

- (a) a persistent presence in communities providing assistance for the community for information and communication technologies;
- (b) telecommunications services delivered in sustainable programs; and
- (c) a single point of contact in each community for the provision of telecommunications services.

## Actions

<b>COMMUNITY DELIVERY</b>		
<b>Action</b>		<b>Responsible Organisation</b>
5.1	Develop and trial models for the ongoing sustainability of telecommunications solutions and service delivery. In the first instance the Remote Community Solutions (RCS) project will review the success factors for ICT projects in remote communities.	DCIS DCDSCA
5.2	In conjunction with the communities and relevant government bodies develop or refine models for shared public access facilities in remote communities.	DCIS DCDSCA
5.3	In conjunction with the communities and appropriate government bodies examine ways of providing persistent 'in community' assistance with the technical aspects of ICT services.	DCIS DCDSCA
5.4	Ongoing monitoring and study of existing and new programs delivering telecommunications services to communities, to access the most successful programs and improve sustainability. The Electronic Outback Project will be the first target in developing a sustainable service.	DCIS DCDSCA
5.5	Investigate and trial ways to simplify the customer interface between community members and the service providers, including the role of brokers and facilitators.	DCIS DCDSCA NGOs
5.6	Other initiatives identified by agencies, RTF and BIG.	Agencies RTF, BIG

## Monitoring

	<b>Performance Indicator</b>	<b>Verification</b>
5.1	Number of models developed and trialed.	Government data.
5.2	Consolidated model ready for piloting by December 2003.	DCIS data.
5.3	Number of communities with 'in community' assistance.	DCIS data.
5.4	Number of communities with sustainable services.	Industry and DCIS data.
5.5	Customer feedback.	Industry and DCIS data.
5.6	Performance indicators as appropriate.	Appropriate sources.

## Appendix A

### Northern Territory Remote Telecommunications Strategic Planning Framework - Principles

*The following strategic principles are defined in the Northern Territory Remote Telecommunications Strategic Planning Framework.*

- 1. The telecommunications services should be on the basis of equity and viability to all permanent remote population centres in the NT.*
- 2. The infrastructure should have the capacity to provide all standard forms of digital telecommunications including telephone, facsimile, e-mail, Internet, interactive text and videoconferencing.*
- 3. The infrastructure and services should exploit remote and northern Australian synergies to achieve economies of scale.*
- 4. New infrastructure should be capable of delivering the required telecommunications services to both individual customers and local service providers at affordable prices.*
- 5. The needs of each community should be developed in consultation with the community and local service providers. Where possible, these requirements will be aggregated to facilitate higher quality and lower cost services.*
- 6. Any initiatives should seek to maximise the local economic and employment benefits opportunities arising from investments in infrastructure and services.*
- 7. Local service providers should harness new telecommunications capabilities to introduce new on-line service delivery models to enhance outcomes and reduce costs.*

## Appendix B

### **The strategies of the Commonwealth Government's Telecommunications Action Plan for Remote Indigenous Communities (TAPRIC)**

#### *Improve telecommunications services*

- Strategy 1. Indigenous Community Phone Program
- Strategy 2. Investigate, promote and support more appropriate products
- Strategy 3. Improve payphone services
- Strategy 4. Build the case for viable online community access centres in 'hub' communities
- Strategy 5. Subsidise community Internet access points in less 'ready' communities
- Strategy 6. Investigate alternative delivery of Internet services
- Strategy 7. Support online content development

#### *Improve information flow*

- Strategy 8. Develop a communications framework
- Strategy 9. Conduct a Public Awareness Information Campaign
- Strategy 10. Improve monitoring and reporting on service levels

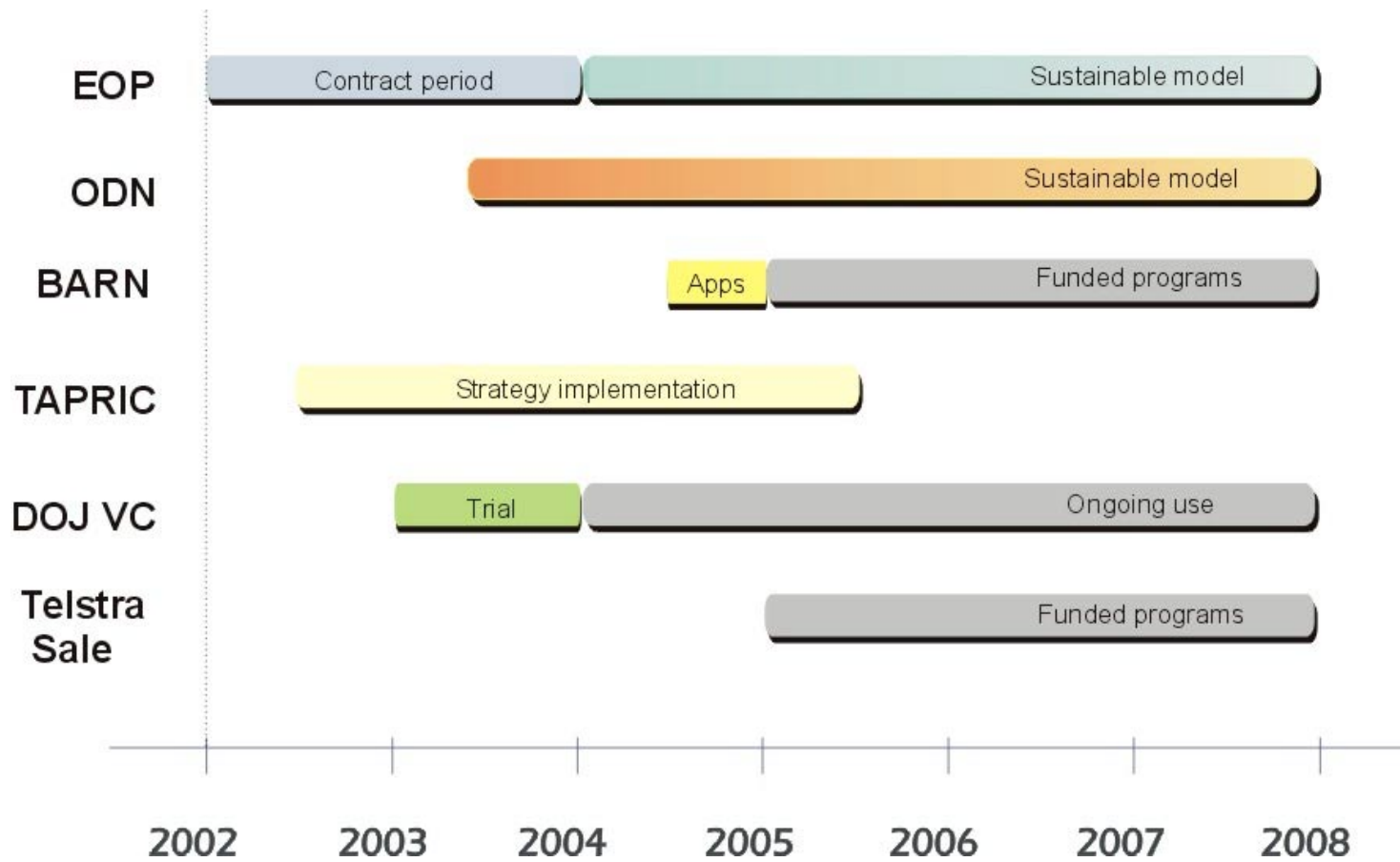
#### *Improve coordination and support, and facilitate partnerships*

- Strategy 11. Improve government coordination
- Strategy 12. Promote coordination and information sharing
- Strategy 13. Facilitate community involvement, coordination and capacity building
- Strategy 14. Improve Coordination of training and support
- Strategy 15. Improve Coordination of service provision

## Appendix C

### Action Plan

The chart outlines the key infrastructure programs over the next five years that are detailed in this Strategy.



## Appendix D

### Current Initiatives

<b>NT Government</b>	
<b>Health</b>	<p>The Department of Health and Community Services (DHCS) represents significant untapped demand for remote telecommunications. There is currently a major program to devolve the delivery of health care to the community level through the establishment of community run health clinic under the Health Sector program. These health clinics will require telecommunications services.</p> <p>The DHCS has recently commissioned around 200 two-way satellite services from Telstra for installation in approximately 70 remote communities. These services provide basic email and Internet access in health clinics and staff residences.</p>
<b>Education</b>	<p>Learning and Technology in Schools (LATIS): The Northern Territory Department of Employment, Education and Training (DEET) has implemented a substantial program aimed at providing technology into all NT schools. The Learning and Technology in Schools (LATIS) program improves student access to information technology that will improve learning outcomes by transforming, enhancing, enabling and amplifying education programs through the use of technology.</p> <p>The project puts networked standardised PCs in schools across the Territory. Internet and email access is also provided. The telecommunications required is provided over satellite services supplied by Optus. Currently approximately 87 remote schools have access to LATIS.</p> <p>Interactive Distance Learning (IDL): The IDL program is a satellite-based service that is providing an enhanced distance education service to anywhere there is a satellite dish approved to receive IDL data. Interactive Distance Learning will be implemented in 87 remote schools throughout the Territory. The program was established with funding from the Commonwealth's National Communication Fund in conjunction with the NSW Department of Education and Training. The program establishes two studios in the Territory for the development and delivery of content. The student will receive streaming video of their teacher in real time and be able to communicate via a 'chat' service or audio (voice). IDL also provides Internet access, e-mail and application sharing.</p> <p>The program also has significant implications and offers substantial potential for remote communities to be involved in learning, training and information dissemination across a wide variety of topics and will assist communities members to gain a greater understanding of technology and electronic services available.</p>

<b>Local Government</b>	<p>Local Government is a major presence within most remote communities in the Northern Territory. The Local Government Association of the NT (LGANT) represents a large proportion of remote communities, approximately 66 in the Northern Territory.</p> <p>To address the identified needs, the Local Government Association of the Northern Territory (LGANT) has successfully applied to the Networking the Nation (NTN) Board for funding for a number of projects. A number of integrated projects will provide equipment and Internet access for Councils throughout the NT. The projects will also provide e-mail and training as well as the development of online business systems to improve service delivery and accountability.</p>
<b>Law and Order</b>	<p>An established policy within Police, Fire and Emergency Services (PFES) is to ensure that all police stations in the NT have access to computers connected to central headquarters. The computers are used for Case management (PROMIS) which means all jobs that are attended are in this system and are accessible from all stations. PFES also uses computers to access MVR (Motor Vehicle Registry), Courts and other records. In many instances the communications links in remote police stations are extremely slow being reliant on existing infrastructure requiring the Police services to install alternative delivery systems. An added complication for the Police services, as indeed is the case with the health sector is the need for high levels of security. This invariably complicates the installation and adds to the cost.</p> <p>The Department of Justice has embarked on a program to extend their use of videoconferencing. The program is examining ways and opportunities of substituting videoconferencing services for in person visitations. This program is coordinating with all stakeholders including non-government organisations. This program is spearheading activity in communities to drive demand for community use of ICT technologies.</p>
<b>Primary Industry and Resources</b>	<p>A number of programs have been developed in the primary industry sector. Notably Landlink which was funded through the Networking the Nation program, provided Internet training for pastoralists. Farmwide Regional Access Network (FRAN) was also funded by Networking the Nation. New programs introduced by the Commonwealth Government, specifically the Untimed Local Calls in Extend Zones (ULCEZ) produced the same outcomes that FRAN intended, subsequently FRAN became redundant and returned funds to Networking the Nation.</p>
<b>Advanced Communications Strategy (ACS) Contract and the Northern Territory Government</b>	<p>The Northern Territory Government entered into a contract with Optus Pty Ltd for the provision of all NT Government telecommunications requirements, voice and data. This has resulted in a data network that in effect is a single Wide Area Network (WAN) for government. The exception is communications with remote communities in the Territory. Government is now working on mechanisms that will allow agencies to aggregate their traffic and deliver services over a public network - that is deliver via the Internet. The provision of high speed Internet capable telecommunications into these communities will be required for Government to deliver electronic services into these communities. The NT Government is likely to be one of</p>

<b>Wide Area Network</b>	the larger purchasers of telecommunications services into remote communities for some years to come. Indeed the expectation is that for service providers to succeed in provisioning telecommunications services into remote areas Government will need to support these providers, generally through the purchase of reasonably priced services and product.
<b>Commonwealth Services</b>	
<b>Rural Transaction Centres (RTC)</b>	The implementation of the RTC program in the NT so far has been limited. At the time of writing there are four RTCs active in the NT with a number of others in various stages of planning. There is general agreement that the RTCs must be integrated with other telecommunications projects and gain significant leverage from each other. RTCs in Indigenous communities will be dependent on adequate infrastructure and services, but importantly they will be sustained by the brokerage services they secure and the appropriate financial arrangements.
<b>Centrelink</b>	As a central body coordinating activities for a number of Commonwealth agencies Centrelink has a substantial presence and part to play in remote communities. Whilst services are currently delivered through existing arrangements the Commonwealth government is currently working towards the implementation of the Government Online Strategy with a particular focus on regional Australia. Embodied within this strategy is the integration and access to all government services, Commonwealth, state and local through government offices and other service areas. These services will be enhanced by access to electronic services through public access facilities such as the Commonwealth's Rural Transaction Centre program.
<b>General</b>	
<b>Electronic Outback Project (EOP)</b>	The Electronic Outback Project established telecommunications infrastructure into fourteen remote communities and provided public access to payphones, videoconferencing, Internet access and fax facilities. Optus Networks Pty Ltd are the contracted provider for the provision of telecommunications services. Optus chooses to provide these services via satellite. The EOP has been able to identify many of the issues associated with the management and delivery of sustainable telecommunications services into remote areas. An important lesson has been the development of relationships with communities and the need for face-to-face contact at all levels and continued interaction to ensure trust and continuity of interest. There is often heavy reliance on a very small number of community members who are willing to champion a project. It is centrally important to recognise the need to manage community expectations. The extremes of the weather and access in the Wet Season to the north and dusty arid environment in Central Australia must also be considered when installing infrastructure.

<b>Outback Digital Network (ODN)</b>	The Outback Digital Network has developed a model for the delivery of telecommunications into remote areas that will provide an approach that may resolve a number of issues common in many remote communities. The ODN model provides for aggregated telecommunications traffic, training and business development in communities and the provision of ongoing support. The NTN program has funded ODN to deliver infrastructure and services into approximately 24 remote communities. ODN has a strong working relationship with Telstra and plans to begin the implementation of its infrastructure in early 2004.
<b>Tanami Network</b>	The Tanami network, (formed in 1992) is an Indigenous managed, owned and operated telecommunications organisation. It provides facilities for videoconferencing in the Tanami communities of Yuendumu, Kintore, Lajamanu and Willowra. The services offered by the Tanami Network are provided over existing infrastructure.
<b>Financial Services</b>	The shift to the electronic economy is progressing into regional areas. The Traditional Credit Union (TCU) has a program in place to establish banking services in remote communities. These services include establishing an ATM in the community. Communications to these sites has generally been via installations of satellite links specifically for the banking systems. Alternative communication systems based on aggregated access of ISDN, potentially using a Virtual Private Network would reduce costs for TCU.
<b>Non-Government Organisations (NGO)</b>	There are a number of Non-Government Organisations that have a substantial presence in remote communities. Many of these are within the health sector. Many of these organisations would benefit from improved and reliable telecommunications, in particular data services.

## Glossary

BIG	Bipartisan Industry Group is an advisory group to government comprised of the carriers, local government and the NTG.
Broadband	Broadband communications is defined in this document as high capacity telecommunications capable of delivering voice, data and interactive videoconferencing.
Broadband network	A network that supports broadband services such as high speed internet.
Carrier	The holder of a telecommunications carrier licence under the Telecommunications Act 1997. A carrier is allowed to supply telecommunications services to the public.
CRC	Collaborative Research Centre
DCDSCA	Department of Community Development, Sports and Cultural Affair
DCIS	Department of Corporate and Information Services
DCM	Department of the Chief Minister
Digital	The representation of a signal in the form of a stream of binary numbers rather than as an analogue electrical signal.
EOP	Electronic Outback Project – A NT Government coordinated project, funded by NTN, implemented by Optus delivering broadband telecommunications to 14 remote communities.
ICT	Information and Communications Technology
IP	Internet Protocol The set of agreed transmission protocols that provides the basic Internet addressing service that ensures data gets to its destination.
ISDN	Integrated Services Digital Network A switched low speed digital telecommunications service capable of carrying both voice (telephone) and data traffic typically provided over copper wires.
ISP	Internet Service Provider A company providing Internet access to consumers.
Local loop	Also known as the Consumer Access Network [CAN] or 'last mile' - the connection (usually copper wire) between the consumers premises and the nearest telephone exchange and main network.
Mbps	Mega (1 million) bits per second.
OC	Online Council – Meeting of state, territory and the federal Minister for Communications

OCO	Online Council Officials – Meeting of state, territory and Commonwealth officials convened under the auspices of the Online Council
OCRCWG	Online Council Regional Communications Working Group – A working group of state, territory and Commonwealth officials convened under the auspices of the Online Council to deal specifically with telecommunications issues in regional and remote areas.
ODN	Outback Digital Network – A NTN funded project delivering broadband telecommunications to about 30 remote communities.
OIP	Office of Indigenous Policy. Part of the Department of the Chief Minister
OTD	Office of Territory Development. Part of the Department of the Chief Minister
RCS	Remote Community Solutions project. A market research project funded by NTN, managed by DCIS to review ICT projects in remote communities to determine common success factors. The review will be across projects throughout northern Australia, all NT and northern SA.
RTF	Remote Telecommunications Forum (NT). The Forum that consists of purchasers of services and products in remote areas of the NT
TAPRIC	Telecommunications Action Plan for Remote Indigenous Communities
ULCEZ	Untimed Local Calls in Extended Zones
USO	Universal Service Obligation
Videoconferencing	Videoconferencing enables people to meet interactively in real time at two or several sites using computers and telecommunications systems. Video conferencing systems simultaneously transmit voice, graphics and images of people so the participants can see and hear each other and are classified into two types, group/room systems or desktop systems.
Wireless	The use of radio technologies rather than copper wires or cable to transmit voice and data.
Wireless local loops (WLL)	Local loop services supplied by wireless technology