



Broadband Framework

Pathway to the future



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Message from the Minister

In the years ahead, broadband will be used for many new and different activities and will give Victorians more choices in the way we live, work and do business.

We will use broadband technologies to create new and better ways of delivering vital public services, such as health and education. Broadband connections to our homes and businesses will generate exciting new employment, learning, recreation and entertainment opportunities.

On a wider scale, broadband has the potential to deliver substantial social and economic benefits to Victoria through improved productivity, increased business revenue, greater job opportunities and more innovative and creative industries.

The Bracks Government is leading the way in improving broadband services for Victorians, especially those living in regional and rural communities. Victoria now leads Australia in delivering better services through the use of broadband and developing new ways to provide access to fast and affordable broadband in under-served areas.

The Government's Broadband Framework defines how the Victorian Government will meet its broadband requirements in a strategic manner that also facilitates the delivery of telecommunications infrastructure, greater take-up of broadband services, increased competition in the broadband market and lower prices for households and businesses.

Through the Broadband Framework, the Government aims to become a leading user of broadband, directing its resources towards improving the quality and accessibility of vital community services while leveraging new investment and funding for broadband infrastructure and projects that will generate significant additional benefits for the wider community.

By concentrating on those areas where the Victorian Government has the most leverage – purchasing the Government's own broadband services in a strategic manner, assisting industries and the community to develop innovative broadband solutions and providing information that supports smart investment decisions – the Broadband Framework will help to ensure that all Victorians reap the benefits of broadband technologies.

Broadband is a vitally important, challenging and exciting pathway to the future.

Through the Broadband Framework, the Victorian Government will continue to show leadership in making sure Victoria's journey along this pathway takes our State forward as one of the best connected communities and most effective users of broadband in the world.



Marsha Thomson
Minister for Information and
Communication Technology



01 Broadband: pathway to the future

Broadband is critical to Victoria's future.

Widespread access to broadband will help Victoria's businesses and industries improve productivity, attract investment, reduce operating costs, deliver better workforce training, become more innovative and create new jobs.

For Victorian communities, broadband will improve the delivery of vital services such as education and health, reduce the isolation of disadvantaged groups and create new opportunities for participating in community life.

For individual Victorians, the wider availability of broadband means better access to new or improved personal and lifestyle services, including home-based learning, working, shopping and entertainment.

The Victorian Government wants to make sure that broadband provides lasting social and economic benefits for all Victorians. The Government is leading the way by using broadband to improve government services in a strategic manner that will generate further community-based initiatives and drive new private-sector investment to deliver benefits to the wider community.

The Broadband Framework continues the Bracks Government's leadership on broadband. It builds on the achievements of the Government's *Regional Connections – a better state of communications* strategy, which has delivered significant improvements in telecommunications infrastructure across provincial Victoria.

The Framework will ensure that the Victorian Government continues its strategic use of broadband in areas with the potential to deliver the greatest benefits to Victorian businesses, communities and households.

Through the Framework, the Government will advance the development of broadband applications that result in more innovative, higher quality services.

The Framework will also ensure that the Government meets its own broadband requirements in ways that facilitate the delivery of improved telecommunications infrastructure, greater take up of



broadband, more competition between providers, and better services and lower prices for businesses and consumers.

The Victorian Government will apply the Broadband Framework to help position Victoria as a world leader in the use of current and 'next generation' broadband technologies, giving all Victorians access to the full benefits broadband has to offer.

What is broadband?

Broadband is the commonly used term for a high-speed telecommunications connection. Broadband is 'always on' and can transfer information many times faster than standard telephone networks.

Broadband gives users fast and reliable access to the Internet and the capacity to transfer vast amounts of data. Broadband services can also carry voice, video and data services on a single connection.

Several technologies are used to deliver broadband connections: ADSL (which uses existing telephone lines), hybrid fibre coaxial cable (also used for cable pay TV services), fibre-optic cable, wireless (which uses radio waves) and satellite.

Broadband speeds range from entry-level ADSL services that start at speeds of 256 kilobits per second (kbps) (around five times greater than a dial-up telephone connection) through to fibre optic networks that support multi-megabit, gigabit or terabit services.

02 The benefits of broadband for Victoria

Economic benefits

Broadband has the potential to deliver significant economic benefits to Victoria.

If 70 per cent of Victorians are using broadband by 2015, the potential economic benefits to the State include:

- an additional \$15 billion added to Victoria's Gross State Product
- an additional 153,000 jobs created across the State
- a 3 per cent increase in the real wages of Victorians
- a 10.5 per cent increase in investment across Victoria.

Source: ACIL Tasman, *Economic Impacts of Broadband in Victoria*, 2004

Businesses benefits

Overseas and Australian experience shows that broadband has the potential to deliver productivity gains, reductions in operating costs and increases in revenue for businesses.

More widespread use of broadband by businesses will lead to:

- faster, more efficient access to online information and services
- the adoption of sophisticated and powerful network applications, such as video conferencing and virtual private networks
- new ways to develop and deliver goods and services, enhance after-sales services, improve business-to-business transactions and create better online meeting and training opportunities
- higher levels of participation and competitiveness in local and global markets

- reductions in telecommunications costs and more streamlined business practices
- greater access for small businesses to services and applications previously available only to larger corporations.

Community benefits

Broadband boosts the Government's capacity to deliver better services to Victorians and generates new ways of supporting and connecting communities.

Broadband provides households with unprecedented convenience and choice of recreational and personal services. However, it is more than just a consumer service. Broadband has the potential to enhance our social infrastructure and improve community life. It is an important tool for social inclusion.

Broadband benefits communities by:

- opening up new opportunities for telecommuting and increasing the flexibility of people's working lives
- improving the delivery of community services such as education, health and transport
- giving community groups greater access to information, building closer links between community organisations and allowing communities to share ideas and knowledge
- boosting the computer, Internet and technical skills of Victorians
- reducing the social isolation of disadvantaged Victorians.

Regional benefits

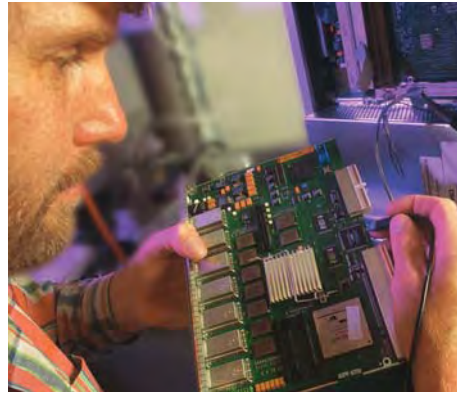
Broadband offers many new and exciting possibilities for provincial Victoria, helping to overcome the barriers of distance and isolation and setting new standards for services to rural and regional communities.

Greater access to broadband in regional areas will:

- make telecommuting more viable, helping regional communities to attract and keep skilled workers
- deliver improvements and innovations in services to regional communities, especially health services
- provide greater access to Internet-based education opportunities, allowing people to remain in their communities while pursuing education and training
- improve the ability of people in regional areas to stay in touch with family and friends
- give regional businesses greater access to national and international markets and enable regional tourist attractions to be showcased to a wider audience
- provide a greater capacity for regional businesses to reduce costs and improve services by setting up networks between local branches, suppliers and customers.



03 Broadband challenges for Victoria



Victoria faces four key challenges in achieving high levels of broadband adoption and use.

Boosting broadband access

While Victoria is making strong progress towards achieving a critical level of broadband adoption across the State, infrastructure gaps mean a significant minority of Victorians have access only to costly satellite broadband.

In June 2004, 75 per cent of Victoria's population had access to ADSL and/or cable broadband, but only 50 per cent of regional households and businesses could access these services.

Lack of access to broadband is frustrating for individuals, businesses and households, and denies affected communities the chance to realise the economic and other benefits generated by affordable broadband.

Distance, geography and low customer density in some parts of provincial Victoria continue to pose a barrier to the commercial supply of broadband in these areas. This presents a significant challenge for the Commonwealth Government, which is responsible for ensuring equitable access to telecommunication services for all Australians.

Improving broadband affordability

The cost of broadband is a vital consideration for any user and more affordable services are essential to the widespread adoption of broadband across Victoria.

Strong growth in broadband uptake in the first quarter of 2004 coincided with the introduction of new competition in the ADSL market and lower cost, entry-level broadband ADSL services, demonstrating the sensitivity of broadband demand to price changes.

Broadband prices in Australia remain relatively high by international standards. For example, the cost of a typical 256 kbps subscription in Australia would purchase a connection around 50 times faster in Japan, the country with the cheapest broadband. This price disparity remains an issue in developing a competitive Australian broadband market.

Developing a more competitive broadband market

Lack of competition and a tough environment for new investment make it difficult to address infrastructure gaps and market broadband services at more affordable prices.

These factors also remain a barrier to the introduction of new broadband platforms, such as fibre to the home (FTTH) and fixed wireless services. However, broadband is the next major growth market for telecommunications providers and there are strong incentives that will drive investment and innovation in broadband. With the right regulatory framework in place, there is no reason why Victorians should have to wait as long for FTTH as they waited for ADSL and cable broadband services.

As the telecommunications industry regulator, the Commonwealth Government has primary responsibility for ensuring that the developing broadband market becomes more competitive, innovative and responsive to international trends.

The Commonwealth Government must also ensure the development of services in markets where competition is ineffective, such as rural and regional areas. This will require regulatory settings that guarantee minimum access and service standards, while encouraging competition and market growth.

Making the most effective use of broadband

While issues of access and affordability are critical to broadband uptake, making the most effective use of broadband is the key to unlocking the full potential benefits of the technology.

As with any new technology, broadband users progress through three stages:

- *adoption* -- where users apply the fast, always-on features of broadband to their existing narrowband internet uses
- *adaptation* – where users change their behaviour as more time is spent and more activities are performed online
- *absorption* – where users transform their everyday activities through new applications of the technology.

Source: UK Broadband Stakeholder Group, *January 2004 3rd Annual Report and Strategic Recommendations*

At the point of absorption, users are harnessing the full potential of broadband.

It took around 10 years for the internet to reach present levels of uptake and become widely used by business and the general community for communicating and completing online transactions. Current trends indicate that broadband adoption is moving at a faster rate. To ensure the full social and economic benefits of broadband are realised as quickly as possible, priority needs to be given to encouraging the more effective use of broadband by government departments, service providers, households, businesses and community groups.

04 Victoria's Broadband Framework



To help achieve its broadband goals, the Government will apply the Broadband Framework to its decisions and actions in relation to broadband.

Framework principles

The Broadband Framework is based on three general principles:

Principle 1 **Strategic use of broadband to deliver community benefits**

The Government will use broadband to improve the delivery of government services in a strategic manner that will generate greater benefits to the wider community.

As one of the largest users of telecommunications services, the Government will leverage its spending on telecommunications to generate new investment and additional broadband services.

The Government will focus on using broadband to improve government administration and service delivery in areas with the greatest potential to leverage further significant benefits to Victorian businesses, households and communities.

Principle 2 **Supporting market solutions**

The Government recognises that the market is the most efficient mechanism for delivering broadband services and that competition for customers encourages industry innovation and infrastructure investment.

The Government will encourage commercial solutions to problems of broadband access and affordability and ensure telecommunications providers have the information they need to address market gaps and invest in new broadband infrastructure.

Principle 3 **Complementing Commonwealth responsibilities**

The Commonwealth Government is responsible for telecommunications within Australia. It sets the national regulatory framework, has substantial national budget resources and is the majority owner of Telstra.

The Commonwealth Government is responsible for ensuring telecommunications services are accessible on a reasonably equal basis and meet community and business needs.

The Commonwealth has promised 'future proofing' of services for under-served rural and remote communities. This requires effective regulatory responses, backed by funding for services where broadband cannot be supplied on a sustainable commercial basis. Fulfilling this promise is critical to developing broadband services across Victoria.

The Victorian Government will not take on Commonwealth Government responsibilities, but will work with the Commonwealth and other States and Territories to ensure maximum value is gained from current national broadband programs and that the development of new national initiatives enhances Victoria's Broadband Framework.

04 Victoria's Broadband Framework

Strategies for action

Strategy 1

The Victorian Government will aggregate its broadband demand to increase government purchasing power and facilitate improved community access to broadband infrastructure.

In providing services to communities across the State, the Victorian Government faces similar challenges to those experienced by private users in obtaining access to high-quality broadband at affordable prices.

The emergence of next generation broadband technologies and the growing use of broadband in delivering services means the Government will regularly encounter problems with access and affordability and must have the means to resolve these issues.

To ensure the Government becomes a leading user of broadband, broadband services must be accessible at a price that encourages government service providers to use them extensively and effectively. To achieve this outcome, the Broadband Framework gives priority to purchasing services for government at a value-for-money price.

The Victorian Government aims to achieve at least a fivefold increase in government bandwidth usage between 2004 and 2009. The Government's overall goal is that, by 2010, Victoria will have an extensive broadband infrastructure, including a mix of platforms and technologies, able to deliver quality services at fair prices.

Other benefits will also be secured through smart government procurement, including stimulating greater investment in telecommunications infrastructure and improving the conditions for competition in broadband supply across Victoria.

What the Victorian Government has done

Victoria is leading Australia in aggregating government telecommunications spending to optimise purchasing power.

Victoria has introduced the Telecommunications Purchasing and Management Strategy (TPAMS), a whole-of-government telecommunications procurement program that aims to lower the cost of services to the Government, while making sure the wider community benefits from increased infrastructure investment.

Through TPAMS, bandwidth and next generation networks will become more affordable for government departments, giving them sufficient broadband capacity to achieve the best possible delivery of their core services. TPAMS also has strong focus on improving broadband services in provincial Victoria.

Victoria's local councils and regional libraries have been given access to TPAMS, boosting their capacity to achieve substantial savings in telecommunications costs.

TPAMS contracts to date have lowered telecommunications costs to the Government by approximately \$200 million over five years and secured approximately \$50 million in new telecommunications infrastructure investment for Victoria.

In regional areas, TPAMS and aggregated purchasing by Victoria's regional health alliances have led to a commitment of \$80 million for new telecommunications infrastructure.

Case study

Purchasing power in action

State-of-the-art mobile broadband services are expanding across Victoria, thanks to the Victorian Government's TPAMS.

In an Australian first, Telstra agreed to invest \$6.5 million to expand Mobile Broadband coverage as part of its successful tender for the Government's mobile services business.

As part of its contract with the Victorian Government, Telstra's Mobile Broadband service, which had been available only in Ballarat, Geelong and the Melbourne CBD, will be rolled out to other locations across Victoria.

By pooling its purchasing requirements for mobile services, the Government has achieved both significant savings for Victorian taxpayers and improved mobile services for regional businesses and consumers.

What the Victorian Government will do

The Victorian Government will continue to aggregate its broadband demand to lower costs, allowing government departments, agencies and local councils to significantly increase the amount of bandwidth they can afford to use in support of cutting-edge applications.

The Government will pursue these procurement objectives over the next few years by:

- continuing to implement TPAMS and inviting additional government agencies, such as water authorities, to be part of the strategy
- extending and upgrading health and education networks to enable the leading use of broadband (see Strategy 2).



Case study

Leading the way in regional health services

Victoria's health sector is recognised as a sophisticated user of broadband within government, pursuing innovative high bandwidth applications such as teleradiology, telepsychiatry and remote patient monitoring.

Victoria now has five regional health alliances with high capacity broadband networks:

- Grampians Rural Health Alliance Network (GRAHNet)
- Gippsland Health Alliance
- Hume Health ICT Alliance (HumeNet)
- Loddon Mallee Health Alliance (LMHA)
- South West Alliance of Rural Health (SWARH).

Together, these alliances are delivering broadband capability to publicly-funded health agencies across provincial Victoria, from large regional acute hospitals to small rural health services.

This combined capability has led to the more effective use of scarce resources, increased productivity and reduced operating costs. It is also creating a platform for the extension of advanced e-health services across Victoria.

By combining their broadband needs and purchasing power, Victoria's regional health alliances are not only boosting access to broadband across the wider community, they are also improving patient diagnosis, treatment and health care for people in regional and rural communities.

Strategy 2

The Victorian Government will improve the delivery of government services through leading broadband use.

Broadband is essential for improving the delivery of government services to Victorians. By ensuring its own rapid adoption and innovative use of broadband, the Victorian Government will improve the quality, efficiency and accessibility of vital public services, while also promoting greater broadband use by businesses, households and communities.

Becoming a leading broadband user will enable the Government to discover and resource the effective use of broadband technologies in government administration and service delivery. This will not only lead to substantial improvements in services, it will also generate spin-off benefits for the wider community, including greater access to affordable broadband services and more innovative uses for broadband in meeting community needs.

Leading use by government will also create new opportunities for businesses and households to use broadband applications for interacting with government.

Significant economic benefits will also be generated from more productive and efficient government, with government productivity forecast to grow by an average 0.25 per cent a year over the next decade as a result of widespread broadband use.

Case study

Radiology project delivers better health and broadband services

The Hume Regional Broadband Digital Imaging Project (HRBDIP) is pioneering an exciting new approach to delivering radiology services in provincial Victoria.

The HRBDIP is an integrated digital imaging and radiology information system that allows doctors to view X-rays and other medical images on desktop computers in their practices, discuss cases with specialist radiologists in other locations and consult immediately on treatment options for patients.

Delivered over HumeNet, a broadband network linking health services across Victoria's north-east, the HRBDIP is delivering significant health benefits to communities in the region, including:

- better access to medical imaging services and faster turnaround of images and reports
- improved patient care and more timely treatment
- more effective use of scarce radiology resources
- substantial savings in film costs and a 30 per cent increase in staff productivity.

Alongside these benefits, the HRBDIP is delivering improved broadband services to the wider community. Thanks to the project, local businesses now have access to advanced broadband through Telstra's WideBand IP technology.

04 Victoria's Broadband Framework

What the Victorian Government has done

The Government has established the Broadband Innovation Fund (BIF) to support the innovative use of broadband in delivering public services. Funding of \$15 million has been allocated to BIF, which will provide seed funding for projects in strategic areas of government service provision, such as health and education, primary industries and the environment.

BIF projects will achieve direct improvements in the quality of government services and the availability of broadband infrastructure, particularly in regional areas. These projects will be evaluated to provide a better understanding of the costs, benefits and necessary conditions for achieving increased government broadband use.

The Government has given priority to developing innovative ICT applications and incorporating broadband into service delivery in health and education, with strong results. Victoria's experience suggests that achieving a genuine transformation in the delivery of services also requires additional investment in skills development and training, applications development, change management and digital equipment.

What the Victorian Government will do

The Government will foster leading use of broadband in government service delivery by:

- ensuring that all Victorian Government locations that need broadband are connected
- monitoring the progress towards leading use by requiring all government departments to identify broadband-enabled ICT applications in their ICT Strategic Plans.

The Government will continue to support the innovative use of broadband in delivering public services through the development of BIF projects.

In implementing the \$15 million BIF program, the Government will:

- work with Victorian health, education and environment agencies to develop projects that demonstrate the innovative use of broadband
- undertake thorough evaluations of these projects to quantify the service improvements and productivity benefits achieved
- apply its knowledge of the costs and benefits of leading broadband use to broader initiatives across the health, education and environment sectors, such as supporting the system-wide adoption of proven broadband applications.

Case study

Keeping students connected

When students suffer from a serious illness that prevents them from attending school for extended periods of time, they miss out not only on important schoolwork but also on regular social contact with their friends and peers.

Victoria's Well Connected Project is pioneering the use of broadband connections and laptops to help ill VCE students continue their studies and remain connected with their schools.

The Victorian Government has contributed \$165,000 to the Royal Children's Hospital Education Institute to work in partnership with Telstra to trial the effectiveness of several models linking ill VCE students to their schools and peers.

Strategy 3

The Victorian Government will make available public infrastructure assets and use its role in planning to support strategic broadband projects.

The Government has control or influence over a range of assets that can be used to lower the cost of extending broadband services across the State, including telecommunications assets such as fibre-optic infrastructure and communications towers, and other assets such as rights of way and road reserves.

These assets can be used to facilitate the creation of broadband networks, particularly for specialised high-end users whose needs may not readily be met by commercial providers.

While regulation of telecommunications infrastructure is the responsibility of the Commonwealth Government, the Victorian Government can also use planning policy to encourage investment and innovation in the supply of broadband to new residential and business developments.

In particular, the Government can encourage the provision of FTTH technology to new housing estates in a commercial manner that ensures a fair balance of the costs between homeowners, developers and the telecommunications industry.

What the Victorian Government has done

Through VicTrack, the Government has invested \$21.5 million in around 600 kilometres of fibre-optic infrastructure (for rail signalling and safety uses) to the Victorian regional centres of Geelong, Ballarat, Bendigo and Traralgon. The Government has made the excess capacity of VicTrack's fibre-optic network and existing rights of way available to support the development of broadband services.

Case study

Broadband coming down the track

A new fibre-optic network being created as part of Victoria's Regional Fast Rail project will open up broadband access and create new opportunities in communities along the rail corridors to Geelong, Ballarat, Bendigo and Traralgon.

The new 600 kilometre network will be used to upgrade signal and rail communications along the four rail corridors and its surplus capacity will be marketed to deliver improved and lower cost broadband services to regional communities.

With the capacity of a single fibre in the order of 100 terabits (or 1 million megabits per second), the network will deliver ample capacity for commercial broadband use well into the future.

The network will generate new investment in communities along the rail corridors and open up new opportunities in information technology, health services, education, business and entertainment. By providing a more competitive broadband market, the network will also contribute to cost savings for businesses in regional areas.



The Government has also introduced the *Road Management Act 2004* to better coordinate the provision and repair of utilities, including telecommunications, that run over and under Victorian roads.

Through its support of the Growth Councils' Wired Development project, the Government, along with the Municipal Association of Victoria, is developing a systematic approach to using planning regulations and commercial property development strategies to provide FTTH in new housing estates.

The Government is also encouraging broadband use in new buildings by supporting the development of the Digital Building Telecommunications Access Guideline (DBTAG), which establishes guidelines for best practice building design to enable broadband access.

What the Victorian Government will do

The Government will make its assets, such as road and rail infrastructure, available to support future broadband projects that are consistent with the Broadband Framework's strategies. For example, the Government will require major government infrastructure projects to consider the benefits of fibre rollout as a component of their business cases.

The Government will consider further use of its planning role to support broadband infrastructure including the rollout of fibre to the home in new housing developments across the State.



Case study

Digital Bayside

When Bayside City Council decided to create a new Business zone, it identified access to broadband services in new and redeveloped buildings as essential to attracting knowledge-based industries and high-tech manufacturing to the area.

Instead of starting from scratch, the council used DBTAG, developed with funding from the Victorian Government, to develop its own 'best practice' guideline to help architects, developers and businesses ensure commercial buildings can support multiple telecommunications carriers and next generation broadband technologies.

While it will be several years before a critical mass of buildings within the new Business zone is upgraded or constructed, the council has received a positive response from local developers and building owners, and believes its new DBTAG is already giving Bayside a competitive edge over other local government areas.

04 Victoria's Broadband Framework



Strategy 4

The Victorian Government will assist industry and communities to develop innovative market solutions.

Broadband is a relatively new and complex market for broadband service providers, involving ongoing technology, commercial and regulatory change.

In this environment, the Victorian Government can assist market development by supporting innovative projects that trial new broadband technologies and business models, identifying the best approaches to delivering broadband services to particular users and locations. The Government can also assist by supporting projects that demonstrate cutting-edge approaches to providing broadband access in under-served markets.

On the demand side, many local communities and communities of interest (such as the film and TV post-production industry sector) cannot access the services they require. The Government can support these users pool, or 'aggregate', their buying power to obtain better services or prices from broadband suppliers.

While State and local governments can encourage more innovative market approaches, Commonwealth Government support – both regulatory and financial – is vital to developing successful commercial solutions to delivering next generation broadband technologies.

What the Victorian Government has done

The Victorian Government's \$5 million Customer Access Network Demonstrations Program (CANDP) has delivered innovative technical and commercial approaches to improving broadband access in regional and rural markets. CANDP projects aim to demonstrate the commercial viability of alternative solutions to overcoming the lack of service provision for the so-called 'last-mile' – the infrastructure that links users to the broader telecommunications network.

The CANDP projects have led to a diverse range of solutions from a number of telecommunications carriers and delivered major improvements in services to regional areas. Evaluations of CANDP projects will be publicly released to inform telecommunications providers of best practice approaches to regional markets.

The Government has also committed more than \$500,000 for demand aggregation projects designed to address the broadband needs of small rural towns, seek specialised and cost-effective broadband services for the film and television post production industry and develop locally based demand aggregation strategies.

The Government is also exploring innovative market solutions for providing FTTH to new housing estates.

Case study

Bringing broadband to provincial Victoria

Across Victoria, CANDP projects explored new ways of delivering broadband services to regional and rural communities.

In Wodonga, a new network of fast and flexible telecommunications services will substantially increase the number of people with access to affordable broadband. By introducing Broadstorm Wireless Broadband, a new technology that is not yet commercially available in Australia, the Wodonga project will not only improve services for households and businesses in the region, but it will also establish Victoria as a leader in the use of mobile broadband applications.

In Castlemaine, businesses now have access to a broadband service comparable to that found in Australia's capital cities. For the first time anywhere in regional Australia, the Bendigo Community Telco's CANDP project is delivering Single-pair High bit-rate Digital Subscriber Line (SHDSL) broadband services to the region. This pioneering project will improve internet speed and interactivity for users, and give local businesses a choice of broadband service providers.



What the Government will do

The Government will monitor and evaluate the current CANDP projects and will publish the key findings so that the market knowledge gained gives practical support to community and commercial telecommunications activities in regional markets.

In light of CANDP results, the Government will also consider further activities to encourage innovative approaches to the regional deployment of next generation technologies, such as FTTH.

Case study

Fibre to the home in Melbourne's north east

The new Aurora housing development in Epping North is set to create a new benchmark for high-quality broadband services delivered through FTTH.

Through VicUrban, the Government is seeking a commercial provider of FTTH for the Aurora estate. The Government aims to identify a commercially viable model for the delivery of FTTH in all new housing estates in Victoria.

The Aurora project recognises that FTTH is the communications infrastructure that households will need in future to support the next generation of telecommunications, information and entertainment media, including broadcast and pay television, video-on-demand services, ultra-high speed internet and multiple telephone lines.

Communities face many challenges in making the transition to FTTH. The Victorian Government aims to meet these challenges by finding a commercially sound approach to funding the deployment of next generation infrastructure and advocating for a more supportive Commonwealth regulatory framework for innovation in service delivery.

The Government will provide \$1.5 million in support for demand aggregation projects to help user groups to organise, identify their needs and develop strategies to obtain better broadband services. This support will target projects that:

- show a high degree of community or participant buy-in
- demonstrate workable strategies for groups in similar circumstances
- leverage funding or support from other sources, including the Commonwealth Government's National Broadband Strategy programs.

04 Victoria's Broadband Framework

Strategy 5

The Victorian Government will provide information that supports the development of broadband in Victoria.

The success of the Broadband Framework relies upon groups external to the Victorian Government, such as users, community organisers, commercial broadband suppliers and investors, taking action to exploit the full potential of broadband.

Unreliable or inadequate information can cause these groups to defer their broadband plans, miss opportunities or make poor decisions. Poor information results in slow uptake and market development, and creates the conditions for distorted investment outcomes and market failure.

Governments can play an important role in filling information gaps, ensuring the availability of reliable information about broadband and promoting a better understanding of the potential benefits of broadband.

What the Victorian Government has done

The Government is publishing a groundbreaking series of reports examining the State's regional, rural and remote telecommunications markets.

The *Spend/Demand – Telecommunications in Regional and Rural Victoria* reports provide a high-quality analysis of current and forecast expenditure on telecommunications services, including broadband, across provincial Victoria.

The reports focus on regional markets that have been partly ignored by telecommunications companies and are valuable tools for investors wanting to deliver the most appropriate solutions to meet the telecommunications needs of Victoria's diverse regional communities.

What the Government will do

The Government will establish an online information resource, the Broadband Access Office, to provide continuously updated, high-quality information for:

- local governments, regional and industry organisations and broadband user groups considering strategies such as demand aggregation or ICT planning to obtain better broadband services
- broadband providers and financial organisations contemplating investing in new broadband technologies or market opportunities in Victoria
- individual users seeking general information on broadband and assistance with consumer issues.

The Broadband Access Office will also publish information from the Victorian Government's broadband research, the results of broadband 'demonstration' programs including the CANDP and the BIF, and other credible government, industry and user resources.

The site will also provide information on relevant local, State and Commonwealth Government initiatives, including funding sources.

Case study

Getting the right information to investors

Investors need information and intelligence about markets to make informed decisions, but this information is difficult and costly to obtain.

Now, for the first time in Australia, telecommunications investors have access to free information about the demand for services in regional, rural and remote markets. Produced for the Government by ACIL Tasman, the *Speed/Demand – Telecommunications in Regional and Rural Victoria* reports estimate demand and spending on telecommunications, down to the level of local government areas.

The reports highlight differences in telecommunications demand, unmet demand and expenditure across Victoria's regions; identify the particular regional characteristics driving those differences; and forecast demand over the next five years.

Telecommunications investors can use the reports to ascertain the current state and future trends of supply and demand in regional locations, helping them make better judgments about investments. Communities can also use the reports to approach investors with requests for services that will meet their particular needs.

Victoria's leadership in providing these reports has been widely acknowledged and the Government is making this valuable tool available to other States.

Strategy 6

The Victorian Government will advocate in the interests of Victorian broadband users.

Policy decisions made by the Commonwealth Government greatly influence the development of broadband at the local, state and national level.

The Victorian Government is committed to using all means at its disposal to ensure that the Commonwealth Government takes the interests of Victorian broadband users into account in addressing both current issues and future challenges.

The Government is committed to working cooperatively with governments throughout Australia to accelerate the rollout and take-up of broadband services. The Government will continue to advocate for a strong national approach to broadband that addresses areas of market failure, integrates federal and State strategies, provides adequate levels of funding and delivers regulatory reform to tackle issues that may be affecting access, competition and affordability in the broadband market.

What the Victorian Government has already done

The Victorian Government has been working with the Commonwealth and other State and Territory governments on the National Broadband Strategy (NBS). This work includes:

- actively participating in the National Broadband Strategy Implementation Group (NBSIG)

- providing advice to the Commonwealth on the design and delivery of NBS programs in Victoria, including the Coordinated Communications Fund and the Higher Bandwidth Incentive Scheme
- collaborating in NBSIG research projects
- sharing information with other jurisdictions on broadband policy issues
- working collaboratively on jointly funded projects, including the LMHA network and the Community Networks Project.

What the Victorian Government will do

The Government will actively promote the interests of Victorian broadband users by:

- advocating more effective policy responses from the Commonwealth Government to the challenge of ensuring equitable access to broadband in under-served areas
- advocating review and reform of the national regulatory regime to facilitate market innovation, including the provision of FTTH, the effective allocation of radio spectrum and the introduction of simpler standard contracts for consumers
- identifying opportunities for coordinating community, industry and government activities, including making Commonwealth government and carrier information available to policy makers, industry and community demand aggregators
- seeking opportunities for coordinating and collaborating with other levels of government on broadband projects.



Case study

Collaboration delivers broadband to regional towns

More than 30 towns in central Victoria now have access to broadband services, thanks to the LMHA, a project jointly funded by the Commonwealth and Victorian Governments.

By establishing its own wide area network (WAN) to deliver broadband to hospitals and health agencies, the LMHA has brought broadband services to towns across the region, from large centres like Bendigo to small towns like Manangatang.

Alongside a contribution of \$2 million from the Commonwealth Government, the Victorian Government's investment of \$7.6 million has enabled the LMHA to meet its broadband needs in smaller towns through an 'open architecture' solution that also provides innovative DSL (Digital Subscriber Line) services to the wider community.

Working with project partners Telstra Country Wide and Extel Communications, the LMHA is demonstrating how collaboration between governments and private investors can deliver high-quality, affordable broadband to local health agencies, while having the spin-off effect of increasing community access.

05 Looking to the future

Broadband technology promises to revolutionise almost all aspects of life in Victoria.

In the years ahead, broadband will become an essential tool for most Victorians in doing business, staying in touch with family and friends, learning new skills, accessing information and services, and communicating with the rest of the world. Broadband will dramatically change and improve the way we deliver health care, education and community services. It will have a powerful impact on almost every sector of Victorian industry, from manufacturing and design to agriculture and tourism.

Through the Framework, the Victorian Government will become a leading user of broadband, improving the delivery of government services while leveraging support for strategic broadband projects, greater investment in telecommunications infrastructure and innovative solutions to providing broadband services to communities across the State.

Around the world, new broadband applications and uses are emerging at a rapid pace. In the coming years, Victoria must do more than simply keep up with these changes: we must be in the forefront of the broadband revolution.

While acknowledging the primary responsibility of the Commonwealth Government for overseeing the development of a competitive Australian broadband market, the Victorian Government will use the Broadband Framework to deliver strong leadership at the State level. This leadership will help drive the provision of broadband services across Victoria, boosting the State's capacity to take up the many exciting opportunities being generated by current and next generation broadband technologies.



Bracks Government broadband achievements

Initiative	Description	Funding (approx.)
Broadband Innovation Fund (BIF)	The BIF initiative encourages innovative use of broadband within government. Further, it aims to accelerate the rollout of broadband to government agencies, such as schools and hospitals, which will also deliver improved broadband access to communities and businesses.	\$15 million
Achievement: - Hume Regional Broadband Digital Imaging Project (HRBDIP)	This project is an integrated digital imaging and radiology information system that supports the efficient capture, storage, transmission and access to medical digital images. The project is being delivered over HumeNet, a broadband virtual private network linking health services across north-east Victoria.	\$2.2 million
Collaborative Optical Leading Testbed (COLT)	Funding to support Ballarat based COLT to conduct leading edge R&D into fibre-optic cable.	\$4 million
Cultural Broadband Network	The Cultural Broadband Network provides broadband links connecting key cultural organisations in Melbourne and regional Victoria (being progressively implemented to June 2007) in order to facilitate broad and diverse community access to digital cultural content.	\$2.8 million
Customer Access Network Demonstrations Program (CANDP)	Supporting investment in alternative regional and rural communications services, the CANDP has demonstrated innovative, commercial and sustainable approaches to providing broadband customer access.	\$5 million
Achievements: - Wellington Shire Council	A rollout of Telstra Country Wide's 2.5G mobile data services across the entire Gippsland area.	\$850,000
- City of Greater Shepparton	The implementation of a Multichannel Multipoint Distribution service by GMTel and Comindico.	\$960,000
- Castlemaine	Bendigo Community Telco (BCT) to establish a SHDSL infrastructure servicing Castlemaine.	\$192,000
- Pyrenees Shire	A range of services will be implemented by OmniConnect to remote locations in the Pyrenees Shire using a combination of technologies.	\$1 million
- Wodonga Shire Council and Murray Regional Development Board	The development and provision of a wireless broadband service across the region.	\$928,000
Demand Aggregation Program	The Government has committed funding to support a range of demand aggregation programs.	\$1.5 million
Achievements: - Community Networks Project (CNP)	This project is designed to develop template strategies to address the broadband needs of small rural towns.	\$677,000 total committed to date \$320,000 (Vic State funding) \$200,000 additional funding from the Commonwealth.
- Film Industry Broadband Resources Enterprise (FIBRE)	A demand aggregation program which developed and implemented the operation of a commercially sustainable broadband network for the film and television post-production sector in Australia.	\$75,000
- G21 (City of Geelong, Borough of Queenscliff, Surf Coast Shire, Golden Plains Shire, Colac Otway Shire)	Funding for the development of a telecommunications strategy.	\$40,000
- Wodonga	The State has assisted the Albury-Wodonga region in the development of a demand aggregation and business case for broadband.	\$56,000 (funded in partnership with the NSW Government)
- Latrobe City	Funding for the development of a telecommunications strategy.	\$60,000
Digital Media Fund (DMF)	The DMF assists in the development of artistic content designed for a multimedia platform.	\$3 million
Digital River Digital Building Telecommunications Access Guideline	A grant to encourage competitive delivery of broadband services through a best practice multi-carrier building access framework.	\$140,000

Initiative	Description	Funding (approx.)
Regional Fast Rail Fibre Optic Network	The Government has invested in approximately 600 km of fibre infrastructure to four major Victorian regional centres (Geelong, Ballarat, Bendigo and Traralgon). The principle use of the network is for rail signalling, but excess capacity on the network can support a range of advanced telecommunications services. This network and VicTracks's existing rights of way are strategic assets for the State.	\$21.5 million
Rural Regional Health Alliances	Regional Victoria is now served by five regional health alliances with high-capacity broadband networks, which provide the platform for the extension of advanced e-health services across Victoria. These alliances encompass the areas of acute health, community and primary health, and some are also extending to local GP network connections. The networks encompass connectivity between organisations within that regional organisation, and also to the HealthSMART data centres which deploy centralised applications across the State. The networks are also delivering cost savings to various health agencies through the use of VOIP technologies.	\$20 million
Achievements: - Grampians Rural Health Alliance Network (GRAHNet) - Gippsland Health Alliance - Hume Health ICT Alliance (HumeNet) - Loddon Mallee Health Alliance (LMHA) - South West Alliance of Rural Health (SWARH).		
Telecommunications Purchasing and Management Strategy (TPAMS)	TPAMS is a whole-of-government strategy to facilitate more competitive telecommunications markets and greater access to broadband services, strategically using the Government's \$178 million annual telecommunications expenditure, \$50 million of which is currently spent on broadband and narrowband data. TPAMS and the regional health alliances broadband purchasing has resulted in a commitment of approximately \$80 million of new telecommunications infrastructure, most of which will serve regional areas.	\$55 million
Victorian Photonics Network	Seed funding for the establishment of the network.	\$140,000
Wired Development/Aurora	The Government has supported the Municipal Association of Victoria and the Growth Councils Wired Development Consortium's development of a commercial and planning model for the provision of advanced broadband services into new housing estates. The Wired Development project is investigating a systematic process for provision of advanced broadband services in new developments, and is exploring breakthrough strategies to establish FTTH in these developments as a way of accelerating the provisioning of FTTH in Victoria. The Government, through Multimedia Victoria and the Government's urban development agency, VicUrban, is also supporting the Aurora Optical Fibre Implementation Tender. This tender, which is being developed in partnership with the Wired Development, is seeking a commercial solution for the provisioning of FTTH in the Aurora estate in Melbourne's outer north-east.	\$470,000
Victoria Laboratory of National ICT Australia (NICTA)	Through investment, the Government has secured a \$50 million Melbourne node of NICTA.	\$8 million
Information Discovery	The Government is actively reducing the cost to investors of obtaining information on Victoria's regional, rural and remote telecommunication markets. Projects include the <i>Spend/Demand – Telecommunications in Regional and Rural Victoria</i> reports that provide much-needed information on telecommunications demand and expenditure throughout greater Victoria. These reports will be updated annually.	\$200,000
Total Commitment (approx.)		\$137 million



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