

Bendigo Calling – Using Telecommunications Smarter

See <http://www.bendigo.vic.gov.au>

Bendigo is about 150 kilometres north-west of Melbourne, with more than 90,000 residents. In its early days Bendigo was a gold mining town, but gradually diversified into a hub for retail and financial services, public administration, tertiary education and health and medical services. As the southern gateway to the Murray-Darling basin, it is a major supplier of services and equipment for this part of Australia's food bowl. While there are now plans afoot to revive the local gold industry, Bendigo is clearly focused on a future that develops skills suited to the knowledge industries.

This regional centre is finding its way in the information economy, with initiatives that other cities could also apply.

A statistical overview

In the 2001 Census Bendigo comprised seven Statistical Local Areas (SLAs). In aggregate, 24 per cent of Bendigo's population used the Internet at home and 35 per cent from any site during Census week. Across the seven SLAs forming Bendigo, levels of Internet use diverged significantly. The SLA, Greater Bendigo –Strathfieldsaye, recorded the highest levels of Internet use (35 per cent at home and 46 per cent from any site), considerably above levels for regional Victoria and for the State as a whole.

Internet use in Bendigo, 2001 Census			
	Total Population	Internet use	
		At home	From Any Site
Gr. Bendigo - Central	18,537	21%	31%
Gr. Bendigo - Eaglehawk	8,393	17%	26%
Gr. Bendigo - Inner East	21,963	28%	42%
Gr. Bendigo - Inner North	8,219	24%	34%
Gr. Bendigo - Inner West	13,772	23%	33%
Gr. Bendigo - S'saye	4,904	35%	46%
Gr. Bendigo - Pt. B	10,209	22%	30%
Bendigo Total	85,997	24%	35%
Regional Victoria	1,275,366	23%	32%
Victoria	4,644,539	28%	38%

Background

Nearly all regional cities have gone through a process of examining their economic base and how best to build on it. In 1998, representatives of the City of Greater Bendigo visited North America on a study tour, investigating regional telecommunication initiatives, call centre developments and e-government strategies. Council embraced the smart city concept as a means of 'putting Bendigo on the map', improving the level of telecommunications services in the region and promoting economic development. This concept was encapsulated in the vision:

'Create a smart community, where the community is empowered to direct the future for information communications and technology.'

It was clear that a smart community needed both high quality telecommunications infrastructure and a business model to put this in place. Regional communities everywhere are working through the challenges of new information and communications technologies, competition in the telecommunications market, and the role of the Internet in improving customer service delivery.

Council initiated a number of open workshops and started to shape a smart community working group, consisting of community and business leaders. This followed a vision statement about community commitment to, and SWOT (strengths, weakness, opportunities, threats) analysis of, the information and communication technology capacity for the region. The analysis highlighted that Bendigo and region could develop strengths in education and e-learning, geographic information systems (GIS), call centres, electronic commerce and financial service delivery (Bendigo Bank and Bendigo Stock Exchange), and e-Health.

Together with a group of local commercial partners, Bendigo started to explore how new technologies could position the community as a leading edge IT innovator. A multi-faceted strategy is now in place for Bendigo to use economic development as leverage for achieving greater social cohesion and stability. As a community with a proud history and a healthy sense of itself as an alternative to the hustle and bustle of Melbourne, Bendigo has been able to draw on the talents of many residents.

Bendigo Community Telco

The City of Greater Bendigo played a lead role in the development of the [Bendigo Community Telco](#)¹ (BCT), launched in August 2000. This is Australia's first regional and community-based telecommunications carrier, and is in some ways the jewel in the crown of the smart city strategy.

A primary goal of the project is to provide Bendigo and surrounding communities with the most modern, cost efficient and effective telecommunications facilities and services to meet the growing needs of the community. BCT is using the power of its buying group and its strategic relationship with its preferred carrier to achieve this objective.

The BCT model adopted the Bendigo Bank model as a community development model. Three central elements have been applied:

- local/regional support and financial commitment;
- using the buying strength and technical expertise of the 'head office'; and
- a franchise model that could be rolled out to other regions.

To establish a community telco, communities provide seed capital of about \$300 000 and Bendigo Community Telco provides professional and technical support. The main advantage of this approach is that businesses will be able to negotiate 'best price' with a communications carrier to supply services because they will be buying in bulk. The collective can also buy telecommunications capacity at wholesale rates and resell it to local users at a discounted price. Key outcomes include:

- BCT has been the vehicle for aggregating regional telecommunications demand; and
- BCT has focused on scoping the demand-side opportunities for new telecommunications service providers and has undertaken considerable research into the types of value added services that might drive regional consumers' uptake of communications services.

¹ <http://www.bendigotelco.com.au>

The BCT comprises a consortium of 15 of Bendigo's major businesses and education and health institutions. One aim of the BCT is to promote opportunities provided through access to broadband, both commercially and socially. It is hoped that [community portals](#)² can help create this collective focus.

Central Victorian Innovation Park

This is a community-developed initiative aimed at sustainable economic development. The Park will develop the knowledge-based sector of the Bendigo and regional economies.

An innovation centre will build on regional strengths, link with national and global knowledge networks and organisations, and focus on effective connections between research, education, development and commercialisation. The Park will also showcase, promote and foster ICT skills and employment opportunities within the region, and deliver world's best practice disaster recovery services to regional Australia. Flow-on benefits are expected through employment and business activity.

Connectivity to the centre will be via fibre optic and wireless (microwaves and satellite) connections, connecting the Park to the Internet backbone and other technology sites – eg. Docklands, Australian Technology Park and La Trobe Technology Park. The Bendigo Community Telco will be an anchor tenant for the Park.

In July 2002 the Victorian Government's Regional Infrastructure Development Fund (RIDF) provided a \$3.3 million grant to the City of Greater Bendigo to develop Stage One of the Innovation Park, on a 2.8ha site provided by La Trobe University.

A Web of Projects

Several other initiatives contribute to the Bendigo Smart City plan. Most have an information technology flavour, but with a view to social benefits as well. For example, [Bendigo Web Central](#)³ is a local Bendigo business providing a portal for Bendigo businesses and community with online information about local events, activities and community groups. It also offers users free webmail and hosts an online directory of local Bendigo businesses.

Bendigo is also well on the way to becoming the leading regional city for call centres, with 6 centres and over 650 agents already. The lower rental and operating costs and competitive labour costs make it an attractive site, as major banking and telephone companies have already realised.

A complementary project is the [Bendigo ICT Centre](#),⁴ a community driven project that was granted \$3.2 million in RIDF funding in 2001. It collaborates with the local ICT community, businesses and telecommunications companies to showcase leading edge information and communications technology. It complements a range of training and education options by regional educational providers and undertakes research into the application of information and communication technologies to the regional economy. The Centre supports the development of regional ICT related business ventures including the commercialisation of research.

² Further information on the development and implementation on the BCT as a case study is online available on the *New Connections* website, http://www.newconnections.gov.au/Article/0,,0_2-1_1-2_5-4_90254,00.html

³ <http://www.bwc.com.au>

⁴ <http://www.latrobe.edu.au/bendigo/ict>

E-Commerce Charter

The dot com crash notwithstanding, electronic commerce remains an important business development technique. The City of Greater Bendigo, Loddon Shire Council and Mt Alexander Shire embarked on a project to adopt e-commerce to empower and develop economic opportunities for their collective communities. To this end, the councils intended to develop a guiding framework for the development of e-commerce capability (an [e-charter](#)⁵) and then to implement e-commerce based on these guidelines.

The Community Advantage project focused on developing an e-business business charter, with the intention of having a local e-commerce model driven by locally identified needs and solutions. The Charter helped develop a shared community vision and a whole-of-community collaborative approach. This bottom up approach in turn helped to identify key priorities and resources, in a positive and collaborative environment. The Charter has provided a guiding framework for the implementation of technologies and infrastructure needed to enable e-commerce. At the same time, it is a living document that can be piloted and respond to business input and feedback. This e-charter will be a living document that will evolve in response to changes in business imperatives and technology.

Bendigo was one of the first regional cities to establish an e-commerce association, the [E-commerce Association of Central Victoria](#)⁶. The mission of the Association is to develop opportunities for the region through research and development of the Internet and related electronic commerce technologies and their promotion to the business and wider communities.

A number of educational and community-based projects have complemented these business initiatives. For example, local business has been encouraged and assisted to make their premises suitable and attractive to disabled people, through a project with the motto 'Good Access is Good Business'.

Central Victorian Communities Project

Funding of \$588,240 was provided under the Australian Government *Networking the Nation* program for four projects designed to ensure the delivery of, and support for, the development of IT and Internet Services and activities to benefit regions and communities of Central Victoria and associated project management costs.

The projects include:

- Computers and Internet access and training for ten community based centres;
- The development of a business plan and a marketing plan for the establishment of a Central Victorian Electronic Commerce Incubator;
- A dedicated Information Technology Resource Centre providing an Internet public access point and training in Maryborough which will be integrated with two similar but smaller facilities in the townships of Dunolly and Talbot; and
- Provision of local call Internet access in the Inglewood and Bridgewater areas of this community currently without this level of access and a range of Internet training and awareness raising activities.

⁵ Community Advantage Central Victoria E-Commerce Charter

<http://advantage.communitysearch.com.au>

⁶ <http://www.ecomcv.asn.au>

Centre for Sustainable Regional Communities

The [Centre for Sustainable Regional Communities](http://www.latrobe.edu.au/csrc/index.html)⁷ develops and supports partnership projects with communities. The Centre was established by La Trobe University in 1998 to support growth in regional and rural communities in the face of economic, environmental and social challenges.

Education Institutions

[Bendigo Senior Secondary School](http://www.bssc.edu.au)⁸ provides 1,800 VCE students with 'high end' technology training and support and is recognised as one of the leading IT VCE providers in Australia.

[Bendigo Regional Institute of TAFE](http://www.britafe.vic.edu.au)⁹ offers diploma/certificate courses in a wide range of computing and ICT training. La Trobe University has strong disciplines in business and computing. The La Trobe Bendigo campus accommodates the University's centre of excellence for Geographic Information Systems (GIS).

Learning City Bendigo

This is an interactive database website auspiced by [Continuing Education Bendigo](http://www.continuineducationbendigo.com.au)¹⁰, and is provided free to learning opportunity providers and customers in the Greater Bendigo area. Simple measures such as the Council's Arts Register help to bolster the lively arts scene that has its own city precinct.

Skills.net Projects

A consortium of local community organisations, primary schools and the Bendigo Public Library provide a range of venues for community Internet access and training in Bendigo and surrounding towns, funded under the Victorian Government *Skills.net* program.

Bendigo Skills.net Access is a project auspiced by Bendigo Access Employment. At the beginning of each month people are offered an 'Introduction to the Internet' short course. People are encouraged to enrol for the course with friends or family members. These courses are based on the nationally accredited module.

'Getting your page on the Web' is also being offered. The emphasis is on assisting people who have a disability to participate in the courses but everyone is welcome to enrol. Group sizes are up to eight participants at a time and the aim is to make the Internet useful and fun.

What Bendigo has learned

Developing smart communities is an ongoing 'bottom up' process. It requires the support and commitment of the community, and in turn empowers communities to control their own destiny. It is about shifting the model from *supply* to *demand* and collectively developing a strategy for community engagement, whether it be business or community focused.

Bendigo's smart community model is based on community commitment, commercial focus, effective telecommunications infrastructure and recognising and leveraging the region's strengths.

⁷ <http://www.latrobe.edu.au/csrc/index.html>

⁸ <http://www.bssc.edu.au>

⁹ <http://www.britafe.vic.edu.au>

¹⁰ <http://www.continuineducationbendigo.com.au/>