



# Satellite

## Remote Chance: Allcom satellite solution gives regional NSW broadband Internet access

For thousands of Australians living in regional NSW, the benefits of learning and communicating via the Internet are lost because of a lack of quality access. NSW.net, an initiative of The State Library of NSW, is charged with delivering fast, reliable and cost-effective Internet connectivity for councils, public libraries and the communities that depend on them.

### Closing the gap between city and country

Whilst a large number of council libraries throughout NSW have benefited from the improved terrestrial network facilitated by NSW.net, a significant challenge still exists for the provision of effective Internet services for many remote libraries – particularly for those without access to broadband ADSL.

After surveying 99 library services, NSW.net identified some 40 relying solely on slow and unreliable dial-up services. Covering a huge geographical area serving thousands of people, inadequate web access was preventing these libraries from meeting the growing community need. For these locations, the cost of rolling out terrestrial broadband was not feasible, so NSW.net began the search for alternatives.

### A solution from space

After an in-depth review of vendors and technology solutions, NSW.net worked with Allcom to trial delivery of Internet services to two remote libraries. Allcom recommended using the NewSat True Broadband satellite solution to provide a two-way satellite broadband Internet connection.

Having worked with Allcom previously on major projects, Joyce Azzopardi, Principal Project Coordinator at NSW.net, was comfortable with the decision. "Allcom have always been a terrific help to me and my customers with a range of networking solutions. Their staff are quick to respond to requests and know what they're doing – which makes my job a whole lot easier."

The NewSat True Broadband solution is based on cutting edge VSAT technologies capable of providing public IP network access from even the most remote locations. As the workhorse of the satellite industry, VSAT provides solid communications, sturdy data delivery and unrivalled adaptability. Download speeds range from 128Kbps to 60Mbps, while upload speeds range from 64Kbps to 1.15 Mbps. More importantly, network failures are rare, with a guaranteed uptime of about 99.5%.

To integrate with the individual library networks, the satellite presented an ethernet interface. Allcom configured the LAN in each library to connect via the library router/gateway. Traffic not destined for the local library network is routed to the Internet via the satellite router/gateway.

As with any always-on broadband connection, security was critical. To protect the systems from viruses and unauthorised intrusion, Allcom installed a Cisco PIX Firewall. A trial installation was completed for Cassilis and Brewarrina, two small libraries in regional NSW, to demonstrate the proposed speed, performance and reliability before rolling the solution out to other regions.



## Case Study

State Library of NSW

### The challenge

To improve the Internet connection opportunities and speeds for libraries in regional New South Wales.

### The solution

NewSat True Broadband, which provides public Internet Protocol network access from even the remotest locations.

### The benefits

Equality of access to work, communicate and play over the Internet for regional communities

High speed video, audio and data service that is second to none

Unlimited downloads and a fixed monthly rate enable predictable budgets

Technology can even be used in mobile vans visiting remote communities



“ Now we know that fast, reliable internet access can be delivered cost-effectively anywhere at all in Australia, there are no limitations to the benefits we can bring to people wherever they are! ”

*Joyce Azzopardi, Principal Project Coordinator, NSW.net*

## Freedom from cables

Not limited by the reach of a buried cable, VSAT stations can be located anywhere with an unobstructed view of the satellite. They can send and receive video, data and audio at high speed.

With access speeds soaring from slow dial-up to quality broadband, the improvement has been dramatic and feedback from the library users has been very positive. The people of Cassilis and Brewarrina can now learn, play and communicate via Internet connectivity equal to any city.

“On top of the speed, the solution has proven to be reliable, secure and easy to manage”, adds Azzopardi. With always-on connectivity, the line rental, call costs and wasted time involved in dial-up services has been eliminated, as have the drop-outs and downtime. The solution includes unlimited download limits for a fixed monthly rate, which makes budgeting predictable. Plus, when rolled out across a network of libraries, significant savings will be realised in the ease of administration and support.

## Hit the road

While working on this trial, Azzopardi spotted another ideal application – providing Internet access for over 20 mobile library vans which travel to people who can't get into towns. “Bringing the benefits of mobile broadband to these people is an exciting development. Once fitted with the technology, the vans can be up and running in just minutes. And when a stop can be just 30 minutes, every second is precious. There's even the potential capability to set up a wireless network from the vans.” Already, units in Wagga Wagga, Wodonga and Lismore have been equipped with always-on broadband.

Mike Smith of Allcom sees enormous potential for two-way satellite broadband; “It has applications for education, emergency services, scientists, researchers and national parks authorities. In fact, any organisation that needs fast, reliable communication in out of the way places. There are no black spots with this anywhere in Australia.”

## So much more than web access

Broadband connectivity opens the door to any high-bandwidth application such as access to corporate databases and email services, company intranet web access, file sharing, hosted applications like library management systems and online access to training and educational materials.

Azzopardi concludes, “Now we know that fast, reliable internet access can be delivered cost-effectively anywhere at all in Australia, there are no limitations to the benefits we can bring to people wherever they are!”

## About Allcom

Since 1996, Allcom has provided effective and innovative IT solutions.

These include total system integration encompassing the implementation of leading edge technologies and infrastructure design.

Regardless of whether you want to streamline communications between branches, speed up network transactions, implement an effective customer contact centre, incorporate wireless networking, introduce new applications or strengthen the security of your network, Allcom can design and implement a proven solution.

Contact our friendly, professional team.

Allcom Networks Pty Ltd,  
Level 31, 20 Bond St, Sydney, Australia  
PO Box R1318, Royal Exchange  
NSW 1225

Tel: +61 2 9921 1355

Fax: +61 2 9921 1366

Email: [sales@allcomnetworks.com.au](mailto:sales@allcomnetworks.com.au)

Web: [www.allcomnetworks.com.au](http://www.allcomnetworks.com.au)

©Copyright 2004 Allcom Networks Pty Ltd. All rights reserved. The Allcom logo is a trademark of Allcom Networks Pty Ltd. Third party products and brand names may be trademarks or registered trademarks of their respective owners. 7577-0704/NSWnet/Allcom

