

MetroMesh™ Success Story

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Metro-Scale Mesh Networking Defined™



Unwiring Downtown

The border cities of Albury and Wodonga straddle the Murray River. One of the largest inland population centres in Australia, it is strategically located on the major Sydney to Melbourne transportation corridor, and conveniently accessible by road, rail, or air transportation. The city leaders understand that a well-developed infrastructure is part of the appeal to both citizens and businesses.

The Murray River Regional Development Board identified access to converged network infrastructure as a critical pillar of regional economic development. According to Lynda Summers, executive director of the board, "We recognized that the key factor for many businesses and individuals in determining whether to settle in one of the big cities or a regional area would increasingly become the availability of broadband internet access. We decided about four years ago we needed a serious plan to meet the communications requirements of its region."

After extensive multiyear study and analysis, they concluded that a regional service offering different from traditional carrier based models would be profitable and effective. Frustrated by the reluctance of both incumbent and alternative carriers to invest in this area, the regional board decided to establish a telecommunications company, and construct and manage its own local "last mile" infrastructure. They formed the Murray River Regional Telecommunications Company, which trades as CountryTell.

CountryTell is a telecommunications service provider and carrier – the implementation entity of the ICT (Information and Communications Technology) Committee's endeavours. It is a not for profit company reflecting the Community governance model. CountryTell holds the assets, relationships and regulatory responsibility, and then licenses their use to suitable commercial

entities for deployment in regional communities. This safeguards the economic development model, ensures appropriate expertise in management and delivery, and removes risk for the community. In general, local governments are not suited to deploy, manage, or operate these regional networks. Under their build, manage, and operate governance model, local government goals are fully met but all operations are provided by skilled personnel employed by the consortium, with a focus on growing local jobs, building local skills and enhancing capacity.

After considerable research, a radical approach was settled on that uses a combination of CDMA and WiMAX technology to construct a local wireless loop. With a capital cost of less than a third of copper-based networks, a community owned network was affordable for the first time. More than that, it provided a technology platform for the future.

Technology from Tropos Networks™ is an essential part of the solution, in terms of both performance and economics. Proven products and technologies from Tropos Networks helped smooth the way to fast pilot deployment. The entire wireless system is based on standards-based 802.11 Wi-Fi, and additional equipment is not necessary to access the network. This eliminates the need to install specialized subscriber equipment,



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Ms. Summers, Deputy Chair, Murray Regional Development Board



dramatically reduces customer support issues, while delivering true broadband speeds – 1-5 megabits per second. Tropos wireless routers are mounted on municipal streetlights, using conventional public utility resources. More than using wireless hardware

that's purpose-built for municipal environments, Tropos software helps keep costs down and service availability way up. Automated discovery and optimization really helped reduce installation and maintenance. Since there is no fixed-line connection, users enjoy the flexibility of complete mobility.

The goal of CountryTell is to provide lower costs connection services, including data and voice calls, while increasing capabilities by providing anywhere, anytime connectivity. For example, mobile calls made under the CountryTell wireless umbrella are made at a flat rate – just as with local landline calls. This new low rate opens up new uses and functionality for mobile phones but

more importantly reduces the mobile telephony budget for regional Australians, the local governments, and regional commerce. The pilot phase covers Albury's central business district, which covers shops, banks, and government offices. "We're very pleased with how Tropos products are performing in this phase of the project," said Ms. Summers. "We'll be ready shortly to move to the next stage."

Albury Wodonga aspires to be Australia's first municipally meshed community and it is well on the way to achieving that aim. The business plans are complete, governance, management and maintenance established, and the technology under trial. With the assistance of Intel, Albury Wodonga can quickly become Australia's first truly digital city.

Tropos Networks metro-scale wireless networks are quicker to deploy, less expensive to maintain, easier to expand, and cost less to purchase than other competing wireless technologies. Tropos technology has been deployed in over 500 cities and 30 countries worldwide.

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