Case Study

Horsham Public Wi-Fi Service
Horsham Victoria

In January 1875, with the connection of the telegraph line, the city of Horsham became linked to the rest of the world. That same month, 140 years later, marked the completion of an extensive free public Wi-Fi project that Horsham Rural City Council CEO Peter Brown has championed in order to "facilitate a culture of people being adept in the digital age".

Located 3.5 hours west of Melbourne in the heart of the Wimmera, Horsham is a prosperous regional city with a lively and compact CBD in which Peter Brown wants to create a culture "in which the community is able to use technology".

While the Wi-Fi hotspot located in the apex of the Soundshell represents the southern extremity of the city freenet, it is the northernmost hotspot, in picturesque May Park, that has seen the most traffic as it is equally popular with locals and travellers along the Western Highway. At the park a weatherproof diecast aluminium Outdoor DuxSpot system has been specially powder coated in heritage green to complement the period colour of the supporting lamppost.

"Every time I pass the park on a nice day, I see individuals and even groups of locals and visitors using their phones to access the free Wi-Fi" says ICT Co-ordinator Vincent Liao. Using the powerful statistics module in Duxtel's *Internet Commander* cloud-based hotspot management platform, Vincent found that "The second most popular spot is Firebrace St which made up 32% of all users in March. Many people using the service are venturing into the main street which I hope will boost business activity in the CBD".

Indeed, Peter Brown's vision for the network extends "not just to tourists. When people come into town from other parts of the Wimmera we want them to be doing business in a fully functional CBD".

To overcome the direct line-of-sight limitations of Wi-Fi, Duxtel designed the backhaul network using MikroTik SXTs mounted discretely on structures around the city, including the cupola of the historic four-storey Horsham Theatre and the base of the iconic T&G Building's clocktower. These thirty-degree sector antennas relay the backhaul signal to additional SXT and DuxSpot units that ultimately provide the street level public access.

Building a municipal Wi-Fi network cost-effectively requires access to Council and privately owned buildings to power and mount the equipment. Firebrace St building owners and tenants alike embraced Council's strategic vision and generously granted permission .

At the heart of the northern zone is the Council Main Office and here an omnidirectional MikroTik OmniTik was installed with a crane to avoid dropping the mast and interrupting existing wireless links. This OmniTik connects to the DuxTel internet gateway and network controller mounted in the server room far below.

In the southern zone, the Visitor Information Centre (VIC) – an essential stop for tourists to the region – hosts a popular hotspot and a second internet connection.

Economic and Business Development Manager Colin Kemp regards the acceptance and use of the service at the VIC as one of the most positive outcomes of the project. "While working at the Centre I've noticed that a lot of international visitors are looking for Wi-Fi. It is not unusual for them to lob on either the couch inside or benches outside to communicate with their families and friends. This facility helps bring these visitors to the Information Centre and makes their visit more enjoyable. I had an American visitor call in over several consecutive days, checking his email, grabbing further tourist information and then going on to visit further regional attractions".

The nine dual-band public Wi-Fi devices deployed in the freenet are connected by secure VPN to DuxTel's *Internet Commander* platform to deliver a seamless city-wide Wi-Fi network requiring little management by Council staff.

Banners, window stickers in shops and footpath decals ensure that residents and visitors are aware of the network. "Horsham and its visitors are embracing this new free service" comments Councillor Pam Clarke. "We have become a very technological society. It's also about inclusion – access to the internet for everyone in Horsham". To bring Horsham to the world, a backstage Ethernet socket at the Soundshell will enable music and cultural events to be streamed live to the web.

Going forward, Horsham's CEO Peter Brown is "very keen to move towards eduroam integration with the University – allowing students to come into the CBD and continue working". As experts in integrating eduroam authentication with municipal Wi-Fi, Duxtel is champing at the bit to extend the network to the teachers and students of the Federation University campus.

Project Partners

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"Usage climbed to 330 daily average users in March. It's a great drawcard for our visitors, our residents and the entire region".

- Councillor Robin Barber.

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