

## Wollongong City Council Case Study

### **About Wollongong City Council:**

Wollongong City Council is located 80 kilometres south of Sydney on a narrow coastal strip, reaching from Windang to Helensburg.

The primary city of the Illawarra region of New South Wales, Wollongong enjoys a magnificent natural environment ranging from rainforests to spectacular sea cliffs and unspoilt beaches.

### **Their Objective:**

The IT department of Wollongong City Council is responsible for providing voice and data to large number of service centres across the Local Government area stretching from Unanderra in the south to Helensburgh to the north.

These service centres include Works Depot, Libraries, Community Service, Leisure and Tourism centres.

Most of these sites were running either a DSL, ISDN or dial-up service which was slow and inadequate for the type of access required at their main Administration site.

One problem the Council faced in deploying their radio solutions to the service centres was the main repeater site that they were using was on top of Mount Keira.



The communication tower, though it is owned by the Council, was overcrowded with antennae that the Council were not sure to whom they belonged or who they were controlled by.

Wollongong City Council issued a request for quotes (RFQ) to provide comprehensive Microwave and Radio communication solutions to a select group of vendors. The proposals were to provide a solution to connect as many sites as possible to their main Administration site.



### **The Solution:**

After discussions with Wollongong City Council together with site surveys and terrain path calculations for each site, Wave1 proposed a Wireless Solution enabling greatly improved access to their main Administration site.

A decision was also made to replace the communication tower at Mount Keira. The new larger tower was built by Telstra with the ownership reverting back to Wollongong City Council on completion. The council has an exclusion zone on the tower between 25-27 metres range with the rest leased back to Telstra, Optus and other emergency services departments.

Wave1's proposal was accepted by Wollongong City Council. Wave1 were to install multiple 100Mbps Licensed Microwave links connecting major council sites to the Administration Data centre through the Mount Keira repeater site. Another 100Mbps Licensed Microwave Link was also connected to the disaster recovery site located in the Wollongong CBD. All of these links use the Mount Keira repeater site for their Line of Sight (LOS) requirement.

Each of the main sites, had number of smaller sites with only a few users at each. The decision was made to use the main sites as a hub in a Point to Point or Point to Multipoint configuration connecting the nearby smaller sites.

The project was installed in two stages. The first stage was to connect the 7 main sites with 100Mbps full duplex Licensed Microwave systems. The second stage was to connect the remaining 26 smaller sites using Wave1 1000 series 5.8GHz License Free systems.

Wave1's initial planning for this project began in November 2004 and was fully installed and completed around June 2005.

Wave1 provided Wollongong City Council with a complete turn key wireless solution which included the design, the installation together with a maintenance agreement. Since completion of the install Wollongong City Council has had all of their equipment maintained by Wave1 under a 4 Hour On Site contract.

**Customer Testimonial:**

**Jeff Howells - Security and Network Architect at Wollongong City Council**

During this project Wave1 were professional, informative and innovative in providing a cost effective and reliable communication solution for Wollongong City Council.

Wave1 have maintained the system since its installation. The reliability of the communication system means that only minor software upgrades and relocation of links to other sites have been needed.

A recent lightning strike in the Wollongong CBD resulted in a call for support. The link was back online within 2 hours of the call. The technical support is excellent. The technical support staff, particularly Mr Tony Anic, have decades of experience and have provided technical assistance and very practical solutions to assist in Council's communication needs.