



CASE STUDY

MUNICIPAL SCADA TELEMETRY UPGRADE

With the continual growth of cities and demand for infrastructure increasing from this growth ELPRO Technologies was selected to provide a wide area digital telemetry and SCADA network for a growing municipality in Australia with outlying regional townships.

The Municipality had an existing Analogue Radio Telemetry system in place that was over 20 years old and required an upgrade that allowed for future expansion to the network and to also provide a greater level of security than the previous system.

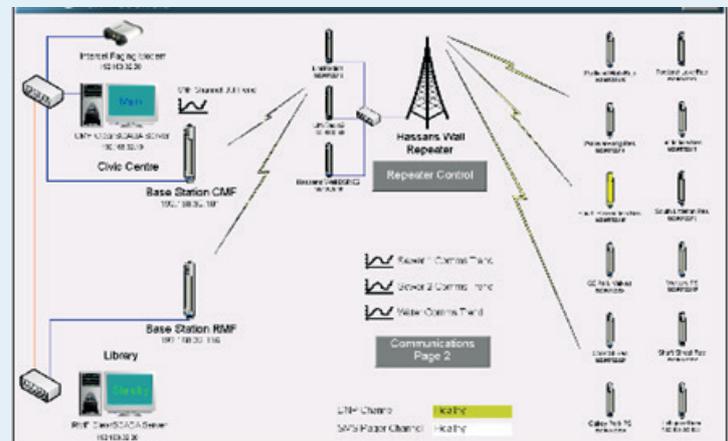


The new SCADA system was to operate in parallel with the existing older network so as to not impair the day to day operation of the existing system and it was to use ClearSCADA and a Radio Telemetry platform based on cutting edge digital technology.

The Condor Series 415U-2 Wireless I/O and Gateway was chosen as the preferred radio due to ELPRO's expertise in the Wireless I/O and SCADA markets and because of the Condor's Integrated High-Speed Radio and I/O Gateway utilising Cyber Secure & an agile licenced frequency platform.

As the region has a large geographical area the 415U-BSR Dual Redundant Base Station Repeater was used because it could offer full radio coverage for the region and provided redundant communications links. This allowed seamless redundant communications links for the Primary and Secondary SCADA's.

ELPRO's migration strategy from the Modbus based SCADA System to the DNP3 I/O Outstation SCADA system was provided as a seamless transition. Cost savings were attained via the use of internal protocol conversion at the outstations that utilised Modbus devices therefore reducing immediate change over of all devices in the network.



35+ years and still transmitting!



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PROJECT FEATURES

ELPRO Technologies Migration Strategy for this project provided:

- Flexible rollout in line with the Municipal resourcing.
- Generated highest system uptime due to multi-protocol support in providing the transition from the legacy SCADA to ClearSCADA,
- Lowered risk of system network issues due to staged migration
- Reduced deployment costs by allowing for utilisation of legacy control hardware via the Modbus /DNP3 Gateway

The 415U-2 Digital Radios provide remote diagnostics and connectivity through the radio network to end devices including PLC's/ RTU's. This gives engineering and operations the ability to reduce travel time to site for diagnostics and trouble shooting and to also allow for remote access to the network.

The 415U-2 Condor series radio supports common industrial IP protocols providing long term support of critical infrastructure

Flexibility in building networks via a common IoT IP platform through such items as LAN, Cellular& Fibre connectivity.

The completion and delivery of the project to the Municipality, provided a secure and cost-effective SCADA and Telemetry network which also offered greater visibility of not only its local area but also the remote regional areas allowing Operations and Engineering to have full control of their Water and Waste Water network.



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