'You can't manage what you can't monitor'

Yet another successful case of the implementation of Maxon's state-of-the art products.

"The Big Dry" is the term by which many Australians refer to the prolonged drought conditions being experienced in many parts of the nation. Following years of below average rainfall, the lower River Murray Basin is one of the many areas where the effects of drought are being seen and felt. Not only is significantly less water available for industries reliant on irrigation, the falling water levels in the Lower Lakes have introduced the threat of acidification.

Following the adage *'You can't manage what you don't measure',* the Department of Water, Land and Biodiversity Conservation in South Australia (DWLBC) has significantly increased its water monitoring activities to meet the demand for resource condition information required by resource managers. Over the past three years, an extensive network of monitoring equipment has been strategically deployed throughout the Lower Murray River, Lakes and Coorong that is capable of continuously measuring water level, salinity, pH, turbidity and wind.

A telemetry system capable of automatically retrieving data from remote monitoring sites has also been established enabling the data be published to the Internet in near-real time. The timely rollout of Telstra's NextG network, with its extended coverage, has made mobile phone access possible to almost every monitoring site within the Lower Murray Basin. The Maxon ModMax NextG modem plays a primary role in providing remote access to the monitoring network. Both rugged and low powered, it has proven to be a suitable device for use in harsh environments where mains power is unavailable. DWLBC's monitoring sites are regularly polled using

dial-up access. However, through the ModMax's support for Internet Protocol packet data a migration path is available to the greater flexibility and potential cost savings provided through IP packet-based technologies.

To gain better understanding of packet data based telemetry, DWLBC are undertaking a Proof of Concept project aimed at scoping the requirements and benefits of migrating from dial-up to packet data based telemetry. Maxon MaxWAN Value Added Services have been utilised to establish fixed IP address access to each remotely telemetered site. Using the Maxon MaxVPN service on the host server has greatly simplified the often-complex task of configuring IP access to remote assets. This configuration provides communications initiated by the remote monitoring equipment to push data to the host server, or communications initiated by the host server to both retrieve data or manage the configuration of the remote monitoring equipment.

Part of the challenge in building an automated system that reports data continuously has been to ensure reliability of every component "from the sensor to the web". DWLBC have worked with Maxon to ensure maximum reliability can be achieved both of the remote ModMax device and also the MaxWAN network link.

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