

DELIVERING RESILIENCE TO WATER NETWORKS



BACKGROUND

The summer of 2019/2020 in Australia was historic, with much of the continent experiencing the hottest and driest conditions on record. It is against this backdrop of extreme heat and lack of rainfall, that water authorities must find a way to continue to supply fresh water into the homes of their customers.

City West Water, in Melbourne, took the initiative to conduct a review of its control system and measure the system's performance under the excruciating, real world conditions. **Around 1,000,000 residents and 40,000 businesses rely on City West Water for the supply of approximately 100 billion litres of drinking water and removal of wastewater.**

A study of the critical control system would help City West Water to prepare for the forecasted long hot summers of the future and underpin supply guarantees to their customers.

OVARRO'S OFFERING

Ovarro supports the delivery of potable water through the remote monitoring and control of the water delivery network.

Irrespective of the environmental conditions, through icy winters or scorching summers, field mounted control systems must always be available so that water authorities can guarantee water supply.



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MONITORING
& CONTROL



RTU'S



WATER



PROJECT OVERVIEW

Throughout the summer, teams of SCADA engineers and technicians collected data from several sites across the City West Water network to review control system components.

These included measuring cabinet temperatures, equipment temperatures and checking diagnostics information from a variety of devices including pumps, motors, process controllers, radios and modems.

The data gathered by City West Water provided them with the information they needed to ensure ongoing, trouble free management, and provide security of water supply to the people of Melbourne.



“I was surprised at how high the RTU temperatures reached inside the cabinets, given we have air cooling systems. I’m very happy that City West Water has invested in RTU products that can handle that heat.”

Scott Humphreys - City West Water OT Team Leader



PROJECT OUTCOMES

A startling result of the survey was that some CPU components were found with temperatures as high as 69°C. Melbourne is one of Australia’s cooler capital cities, but it is not immune to the changing environment.

High temperatures place stress on field mounted equipment and it is important to acknowledge these extremes and design control systems accordingly.

These real-world samples provide City West Water with the information they need to build a rugged and resilient control system capable of providing reliable operations all year round.

Customers depend on a reliable water supply and the people of Melbourne can be confident that their water authority is using actual experience to ensure their supply.

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OUTCOMES CONTINUED

Ovarro was pleased to be informed that the Kingfisher Plus RTU's, of which City West Water has in excess of 200, were operating within their design parameters.

Older Kingfisher RTU's are designed to operate from -20°C to 70°C , whilst models manufactured since 2015, including the latest CP-35 with the powerful, 1GHz processor, are designed to operate from -40°C to 85°C .

Water is essential for life, and in the midst of a long, dry summer it is crucial that water authorities are able to supply potable water to all of their customers.

Ovarro is proud to work with water authorities, like City West Water, that plan for a challenging future and recognise the importance of the critical infrastructure that manages our water supply.

KEY DELIVERABLES

- Water supply relies on an operational control system
- Leading Water Authorities consider the impact of a changing environment on all functional components of their supply systems
- Componentry temperatures are now reaching close to 70°C , and will get hotter
- Kingfisher RTU's will reliably operate from -40°C to $+85^{\circ}\text{C}$

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