SCADA Guidelines

Background

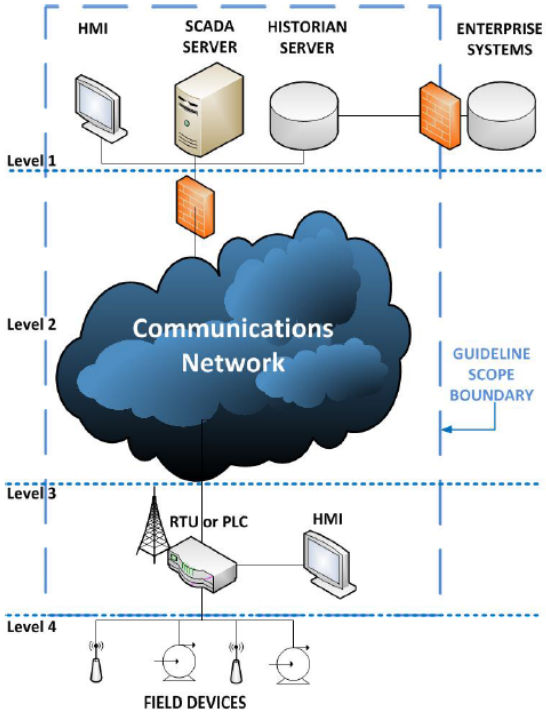
This project produced a WSAA endorsed SCADA Guideline document which provides direction in the development and implementation of SCADA systems for the Australian water industry.

SCADA is utilised in all water utilities to monitor, control and provide real time information on the asset base. SCADA is increasingly becoming mission critical in achieving business objectives and it is imperative that utilities apply a whole of lifecycle approach to the design, procurement, operations and maintenance of their SCADA assets.

Individual water utilities have developed a range of standards associated with their SCADA systems ranging from very basic to highly sophisticated dependent upon organisational strategy or size. These standards are generally prepared in isolation and do not provide clear benefits across different utilities nor to the wider market place in providing SCADA solutions. There is also no clear guidance to current industry practice in application of SCADA systems to water utilities. It was considered that it would be highly beneficial to all water utilities, designers and vendors if there was a common set of standards or guidelines available for all aspects of the SCADA lifecycle.

This work was undertaken by Jacobs, in consultation with WSAA and the participation water utility deliveyr team. The project was delivered to member participants in August 2015.

FIGURE 1.2.2
OVERVIEW OF THE SCOPE AND BOUNDARY OF THE GUIDELINE



Outcomes and benefits

Outcomes:
This project provides water utilities with whole of life-cycle SCADA system requirements for minimum acceptable, good and best practice for all elements within a SCADA system; exlucding field devices and enterprise systems.

The SCADA guidelines developed:

- are non-prescriptive, vendor independent and scalable;
- cover the entire SCADA asset lifecycle;
- identify general benefits to the business from implementation of SCADA;
- include a series of best practice guides;
- are plain English documents that can be easily incorporated into a specification;
- include a common definitions guide; and
- cover (but not be limited to) water, wastewater and, recycled water products.

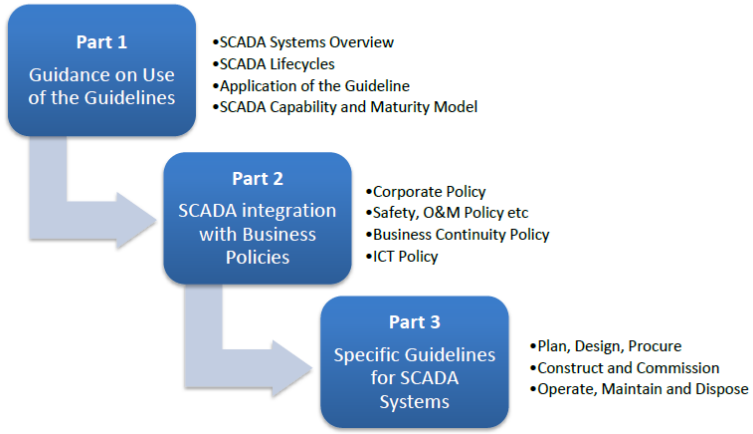
The project also developed a SCADA Maturity Model that enables each water utilty to assess where their SCADA system, policies and procedures lie relative to the 5 level maturity model.

Benefits:

This project offers the opportunity to each utility the abilty to assess their SCADA systems against the three levels of SCADA system requirements and aid in planning future SCADA system directions.

It will provide vendors with a clear set of water utility requirements for the full SCADA system life cycle.

FIGURE 1.1
OVERVIEW OF THE STRUCTURE OF THE WSAA SCADA GUIDELINE



It will place all water utilities in a stronger position when requesting water industry specific variations/modificaitons to SCADA systems and products supplied by SCADA vendors and system integrators.

It will also facilitate interoperability between water utilities through the standardization of SCADA interfaces and data would also simplify and facilitate data transfer following merger or demerger of water utilities.

Participating members: Banana Shire, Barwon Water, Coliban Water, East Gippsland Water, Gippsland Water, Gladstone Area Water Board, Goulburn Valley Water, Hunter Water, Icon Water, SA Water, South East Water, Seqwater, Sydney Water, Taswater, Toowoomba Regional Council, Unity Water, Wannon Water, Water Corporation and Water NSW.

How to purchase

This subscription project was funded by participating WSAA Member utilities. Non-participating WSAA Members and those without WSAA membership will be required to purchase the project deliverable. The deliverable will only be made available to water utilities. Prices will be calculated according to a utility's number of connections.

Participating members can access this project via the WSAA Member Portal. If you do not have access to the portal please contact web@wsaa.asn.au.

For further information please contact Russell Reichstein at russell.reichstein@wsaa.asn.au or on 0409 475 318.