

Case study: Infrastructure strategy

Requirements

Reduce costs and dependency on out of date hardware

Enhance performance

Improve flexibility and resilience

Approach

Research options available to replace an obsolete legacy component with a supported system, amend the architecture accordingly and integrate the new functionality into the solution. Develop and deploy the solution on site, live and in parallel to the live system without causing downtime and providing roll-back capabilities within a matter of seconds.

Research

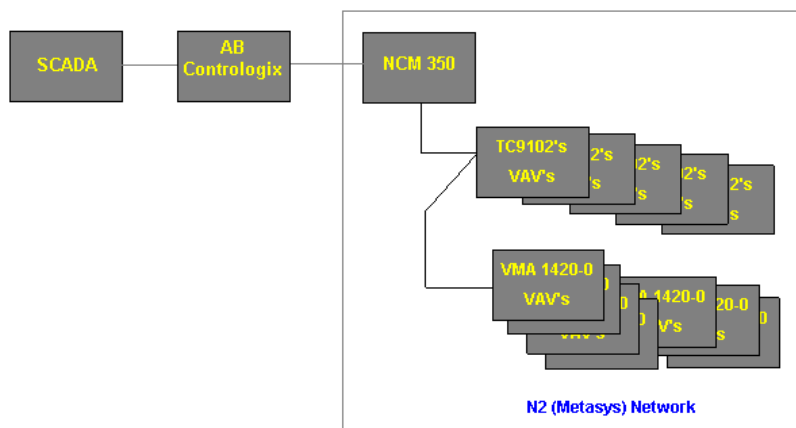
Options

- FieldServer SlotServer N2
- S4Group N2 OPC Router
- Matrikon N2 OPC Server

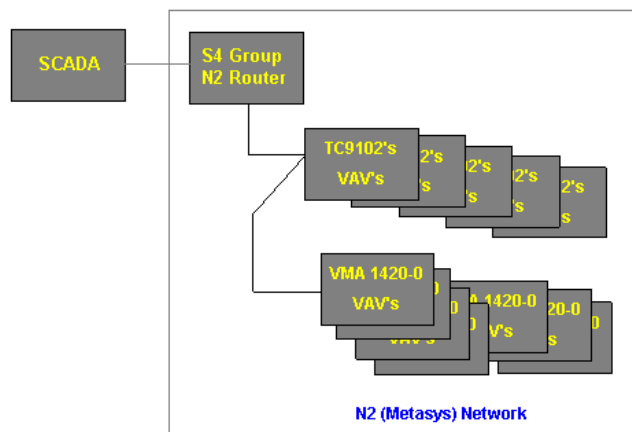
Why the S4 over the other options?

The FieldServer introduced additional layers of complexity to the system requiring the retention of the JCI NCM350 Supervisory Controller. Furthermore the FieldServer was not capable of supporting all the N2 devices necessary. The Matrikon introduced additional expense – requiring additional convertors (RS-485 to RS-232) and licensing to support these to provide redundancy. The S4 permitted removal of obsolete hardware and an entire layer of complexity. It gave access to registers on the VAVs previously not available. The new architecture is fully resilient to a power failure.

Old configuration



New configuration



A real example

An ISP had a BMS in place which depended on out of date and no longer available hardware, exposing them to unacceptable risks. They were only able to report on basic functions of their attached devices and were subject to expensive licensing costs for development software if they wished to improve this situation. Overall the system was performing slowly and was unstable. As they are a 24/7 operation they required a solution which was reliable, cost-effective and, most importantly, supported by current hardware. They also required that this solution be put in place without any downtime to their operations.

Our solution removed all the deadwood from the architecture, increased the responsiveness of the system by 40% and obviated the need for additional costs for further development and support. We were able to simplify the solution whilst adding functionality, reduce the hardware footprint and associated exposure to risk and most importantly we could do all this with zero impact to the ISP's critical operations.