



ICCP/ TASE.2 Implementation for MicroSCADA

Case Study

CLIENT NAME : Fortune 100 Utility Automation Company

PROJECT TITLE : IEC 60870-6 (ICCP/TASE.2) Implementation for SCADA

BUSINESS CASE

The client required the Implementation of ICCP/TASE.2 Protocol for OEM's Sub-Station Automation SCADA Software. The Implementation needed to Support ICCP Block 1 and Block 2.

SOLUTION

The stated driver was developed using the following resources:

1. ICCP/TASE.2 Specifications
2. Bilateral Agreement

The ICCP/TASE.2 Protocol was implemented as a separate process that automatically invoked on SCADA startup. The ICCP task used SISCO's MMS Ease MMS implementation for MMS Support and SCADA Communication Programming Interface (CPI), for interface with SCADA. The ICCP functionality was implemented into the ICCP process, which in turn utilized the MMS Sub-System routines and VCC specifications to implement the ICCP functionality. The initial implementation scope was limited to ICCP Block 1 and Block 2.

The Implementation covered the following ICCP/TASE.2 Block Functions/Objects:

1. Association
2. Data Value Objects
3. Data Set Objects
4. Data Set Transfer Set Objects
5. Next Data Set Transfer Set Objects
6. Condition Monitoring

In addition to ICCP Block 1 and 2 ICCP supported the implementation of Hot-Standby Operation and linked the failure detection and switch over. The SCADA ICCP Module was implemented as a Visual GUS based library with the associated ICCP Process. The Visual GUI Library Module also used the CPI interface to communicate with the ICCP process.

TOOLS USED

- Microsoft Visual C++ Compiler
- SISCO MMS Ease Lite
- SCADA CPI Communication Programming API's
- SCADA Visual GUI Programming Environment
- MicroSCADA General Programming Environment
- Windows RAS Communication API