



IEC 104 GPRS Gateway (SYNC 2000)

Case Study

CLIENT NAME : European Automation Major

PROJECT TITLE : IEC 60870-5-104 / GPRS Protocol Gateway

BUSINESS CASE

The client, a Major OEM in the RTU and SCADA space, required to provide IEC 60870-5-104 gateway over a GPRS/CDMA network to their SCADA system from RMU's installed in the field. The OEM RTU/PLC did not have necessary support for communicating over GPRS/CDMA. The Kalkitech SYNC family of products was deployed to achieve this functionality.

SOLUTION

The stated solution consisted of the following:

1. Kalkitech SYNC 2000 Protocol Gateway with 3 RS-232, 1 RS-485 and 1 Ethernet port and IEC 104 Slave and Modbus Master Protocol Components
2. GPRS/CDMA External Modem
3. OEM SCADA Software
4. OEM RTU
5. IEC 60870-5-104 Protocol Test Tool

The stated OEM RTU/PLC was connected to the SYNC S6R1 protocol converter over Modbus RTU protocol. SYNC 2000 was connected on another interface to the GPRS/CDMA modem. The SYNC 2000 was configured to be connected on the GPRS/CDMA network with fixed IP assigned to the interface. The SYNC 2000 on the GPRS/CDMA interface provided a TCP/IP connection and IEC 104 Slave interface, to which the OEM SCADA connected.

This network had over 120 units running continuously from 2004 with expansion plans for 100 more units.

TOOLS USED

- Test Harness IEC 60870-5-104 Test Simulator
- EasyConnect Configuration Tool