Case Study: Modbus to IEC 60870-5-101 Protocol Converter (KSGL/M)

Provider Name : KALKI Communication Technologies (P) Ltd.

Client Name : Fortune 100 Automation Major

Project Title : Modbus to IEC 60870-5-101 Protocol Converter

The Problem

The client, a Major OEM in the RTU and SCADA space, required to provide Modbus interface to a 3rd Party Controller from its system, which supported IEC 60870-5-101 Slave Protocol. KSGL/M Protocol converter, with IEC 60870-5-101 Master and Modbus Slave Protocol was used to achieve this interconnection.

The Solution

The stated solution consisted of the following:

1. KSGL/M Protocol Converter with 2 RS-232, 1 RS-485 and 1 Ethernet port.
2. OEM SCADA Software
3. Modbus RTU from the OEM
4. IEC 60870-5-101 Master and Modbus Slave Protocol

The said OEM SCADA was connected to the KSGL/M protocol converter over IEC 60870-5-101 protocol. The controller from the 3rd Party was connected to the KSGL/M over Modbus protocol.

Tools Used:

- Microsoft C Compiler
- Embedded Processor Development and Debugging Environment
- Test Harness IEC 60870-5-101 Test Simulator
- VC++ based Configuration Utility