

Case Study: IEC 61850 to IEC 60870-5-104 Protocol Gateway (KSG/L/P)

Provider Name : KALKI Communication Technologies (P) Ltd.
Client Name : European Automation Major
Project Title : IEC 61850 / IEC 60870-5-104 Protocol Gateway

The Problem

The client, a Major OEM in the RTU and SCADA space, required to provide IEC 60870-5-104 gateway for an IEC 61850 compliant sub-station network. The Sub-Station network comprised of OEMs IEC 61850 compliant IEDs, and OEMs IEC 104 Compliant RTUs and SCADA Systems. Kalki KSG/L/M Gateways were used to establish connectivity between the IEC 61850 network to an IEC 104 network.

The Solution

The stated solution consisted of the following:

1. KSG/L/M Protocol Gateway with 3 RS-232, 1 RS-485 and 2 Ethernet port and IEC 61850 Client and IEC 104 Slave Protocol Components
2. EasyConnect Configuration Tool
3. OEM SCADA Software
4. OEM RTU
5. IEC 60870-5-104 Protocol Test Tool

The said OEM SCADA System was connected to the KSG/L/M protocol converter over IEC 60870-5-104 protocol and the Sub-Station IEDs were connected on IEC 61850. The IEC 61850 platform was suitably configured and the ICD files suitably created to ensure smooth transfer of data between the two networks.

Tools Used:

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