

# IOT

## IOT GATEWAY

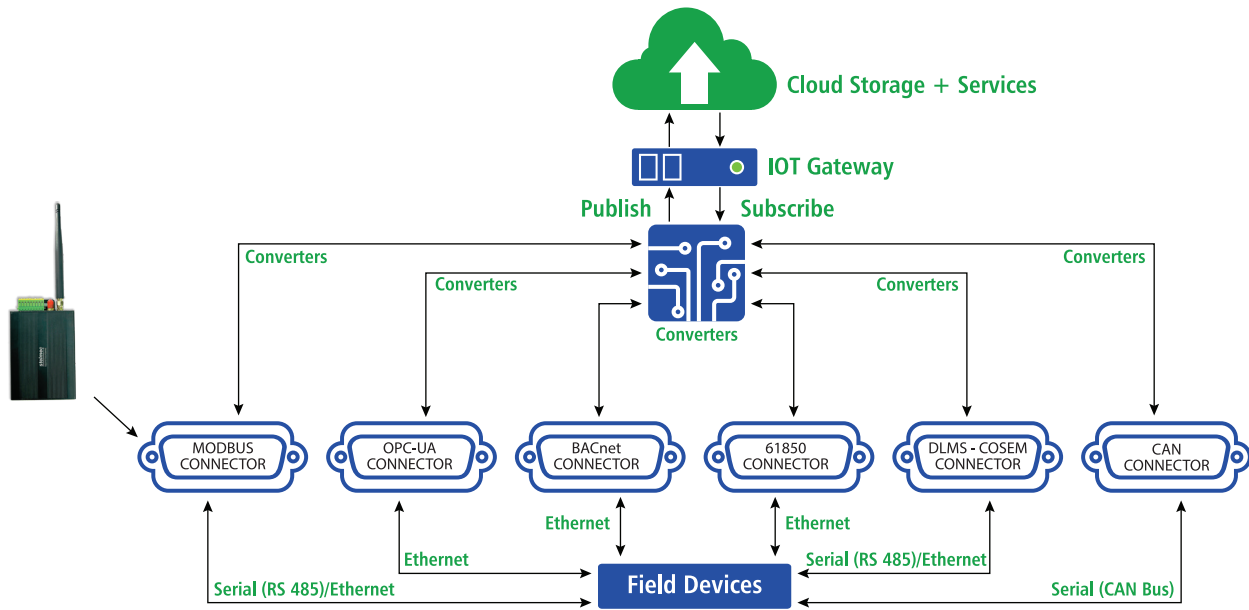
As the distribution network has become highly complicated nowadays, utilities need to look forward to automating substations to enhance their functionality and efficiency and improve power transmission quality. A remote monitoring and controlling system is thus needed to reduce cost, time, labour and save energy for sustainable development.

Stelmec Make Protective relay used in the VCB switchgear panel can be configured with IOT Gateway devices which can pull and push the data in the server. By referring IP address, substation engineers can monitor the switchgear Data through relays including fault, lag ,etc. The IoT based system allows objects to be sensed or controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into computer-based systems, resulting in improved efficiency, accuracy and economic benefit with the added merits of minimum human intervention.

### Salient Features

- Receives data from sensor /Relays /IED device, etc. using RS 485 or Ethernet
- Converts Multiple Protocols such as Modbus RTU/TCP or 61850 to MQTTs
- Connects to Panel Meters using RS 232
- Performs pre-processing, filtering and cleaning on unfiltered data.
- Transports into standard protocols for communication.
- Sends data to cloud & with remote telemetry allows local control
- Establishing communication bridge
- Provides additional security.
- Provides local storage on SD Card
- Pay per use model in Cloud Architecture.
- 2 Element Option Available





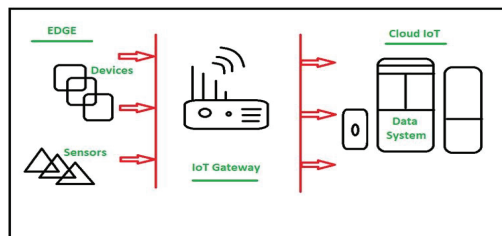
## Stelmech Architecture

### Solutions

- Transformer Monitoring
- Relay/IED Monitoring
- 3 Phase Meter Monitoring
- Grid Inverter Monitoring
- AQI Monitoring
- GHG Monitoring
- BMS Monitoring
- PLC & RTU Monitoring

### Benefits of Substation Automation

Enhanced Efficiency	Automation streamlines operations, optimizing energy use and reducing downtime.
Improved Reliability	Real-time monitoring and control increase substation reliability, minimizing disruptions.
Increased Safety	Automation reduces human intervention, minimizing safety risks for workers.
Reduced Costs	Automation optimizes asset utilization, reducing maintenance costs and improving ROI.



- There is a continuous effort at Stelmech to keep abreast of latest technology in line with customers' requirements and hence the product specifications are subject to change.
- Products described in this catalogue are manufactured and supplied according to the Certified Management System ISO 9001:2015.
- Product variants provide different combinations of features / specifications listed above & need not necessarily be a part of single variant.