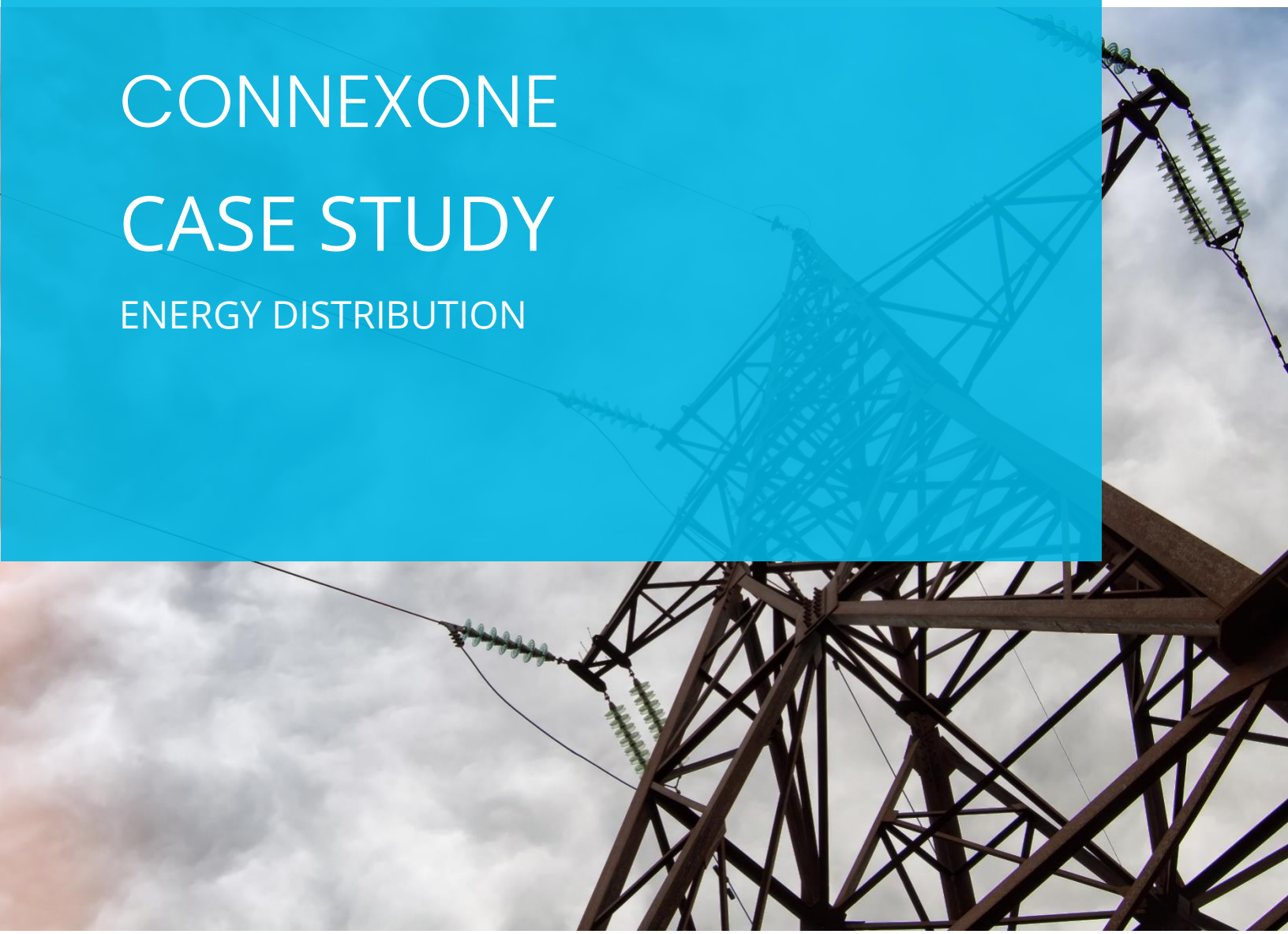
CONNEXONE CASE STUDY

ENERGY DISTRIBUTION



ANY PROTOCOL DATA WHERE

CONNEXITE

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SECURING HIGH PERFORMING INFRASTRUCTURE

In the dynamic landscape of power generation, the transfer of information from data generators inside a power plant for performance and business analysis is crucial. This data, encompassing operational metrics, energy output, and equipment health, serves as the backbone for informed decision-making. By analyzing this information, plant managers can:

- Identify inefficiencies
- Predict equipment failures
- Optimize energy production

This enhances operational efficiency, reduces downtime, ensures compliance with regulatory standards, and facilitates transparent reporting to stakeholders. Moreover, it enables the adoption of predictive maintenance strategies, significantly reducing costs and improving plant longevity.

CHALLENGE

Information delivery out from the power generation network while keeping the infrastructure free from any potential attack.

SOLUTION

ConnexONE one-way data transfer for industrial applications such as MODBUS, Profinet, MQTT, OPC and any other IoT protocols

OUTCOME

Real-time information transfer to allow a clear visibility of operation required for performance and business analysis.

SOLUTION OVERVIEW

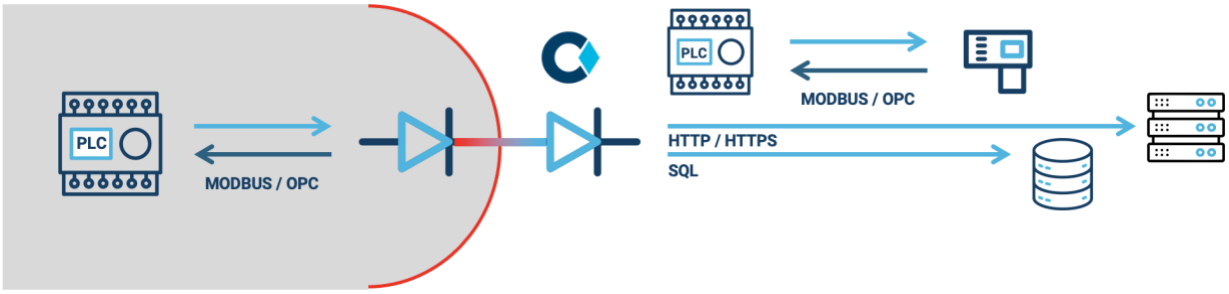
Secure transfer of data is not simply switching packets from one zone to another. It needs to:

- Understand the packet structure
- Apply requested filters
- Guarantee not only the transfer of the data but also prevent any return path flow physically.

ConnexONE provides all these functionalities. It knows how to speak with Modbus, Profinet, MQTT and OPC-enabled devices such as PLC's. Users can add many devices to retrieve register values and forward them to their shadow copies, providing the same structure or sending data to Web or SQL-based receivers. Optionally, users can contact Connexite Engineering Team to ask for more receivers.

Solution Components

All ConnexONE hardware pairs are capable of transferring MODBUS, Profinet, MQTT and OPC information. It is possible to send received data to more than ConnexONE receiver.



Application

ConnexONE is responsible for communicating with PLC or similar devices to request information. This communication is based on industry-standard MODBUS, Profinet, MQTT and OPC protocol. Received information is sent to ConnexONE Postman side via an encrypted single-way link. Postman serves this information either by shadowing virtual PLC devices or sending it to pre-configured Web API, MQTT Brokers or SQL services. All configuration is handled on ConnexONE Guardian side. There is no information storage for security purposes. Only the last data is shown and temporarily kept in memory for seconds.

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