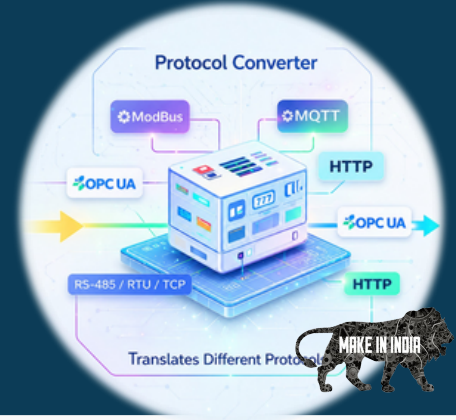


PROTOCOL CONVERTER

Enables seamless communication between devices using different protocols, in modern substations by translating data formats in real-time, thus supporting efficient monitoring and control



Compatibility



Cost Efficiency



Connectivity



PROBLEM

- Different devices use different communication protocols (e.g., Modbus, OPC UA, MQTT)
- Legacy equipment (PLCs, RTUs, meters) cannot connect with modern systems like IoT platforms or cloud dashboards
- Replacing legacy infrastructure just to make systems compatible is expensive and time-consuming



SOLUTION

IG "Protocol Converter" bridges the gap between different protocol standards thus

- Ensures seamless communication between incompatible devices
- Enables integration using existing hardware
- Reduces dependency on multiple gateways
- Supports multiple protocols in a single device



Smart Grid & Utilities

Access and control systems from anywhere



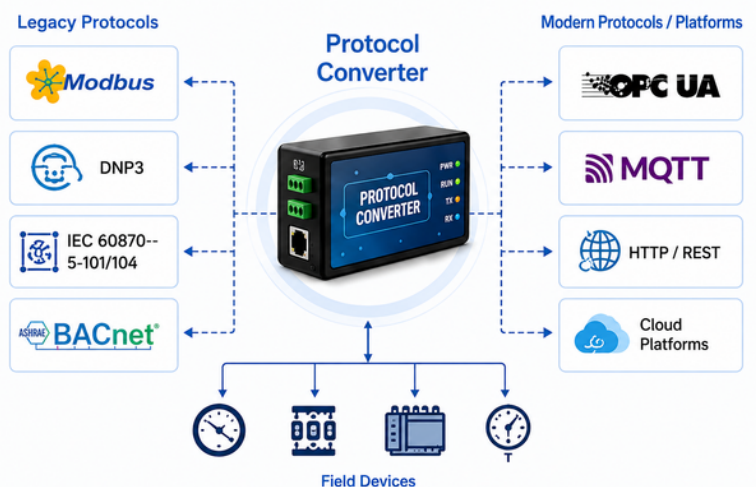
Industrial Automation

Connect PLCs, HMIs, drives, and sensors across different protocols



Energy Management Systems

Integrate HVAC, lighting, energy meters, and security systems





KEY FEATURES



Connect legacy equipment with modern IoT systems



Convert industrial protocols in real-time



Low latency for critical operations



Easily adapt to evolving system requirements



Industrial-grade performance with robust security



BENEFITS



Improved operational efficiency



Reduced downtime and maintenance efforts



Real-time data visibility and decision-making



Extended life of legacy equipment

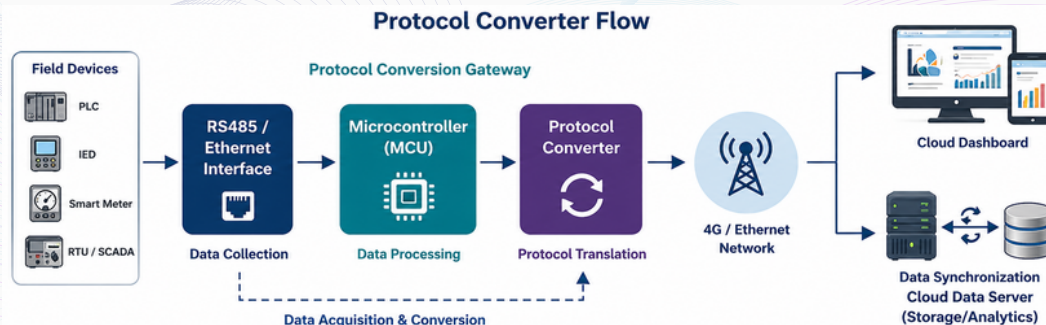


Enhanced system reliability and performance



SYSTEM ARCHITECTURE

Protocol Converter Flow



OPERATIONS



Device collects data from connected field devices (PLCs, meters, RTUs)



Ensures continuous monitoring and reliable system performance



Transmits data securely to servers or cloud platforms



Processes and converts data into required protocol formats



SUPPORTED PROTOCOLS

Legacy Protocols:

- Modbus
- DNP3
- IEC 60870-5-101/104
- BACnet

Modern Protocols / Platforms:

- OPC UA
- MQTT
- HTTP / REST
- Cloud Platforms (AWS, Azure, Private Cloud)



Noida

IIT Kanpur Extension Center, C Block,
Phase 2, Industrial Area, Sector 62,
Noida, Uttar Pradesh 201309



Kanpur

SIIC, IIT Kanpur,
Uttar Pradesh 208016

www.innovativegrid.in
ceo@innovativegrid.in
+91 99581 59054

