

Engineering Solutions for Smart Grid Products




Specialized in Smart grid product development with capabilities in Electronics, Geospatial solutions and Mechatronics

Practice highlights

- Comprehensive solution; consultancy, design, implementation and build
- Matured engagement with 5 leading OEMs
- 10+ Smart Grid Subject Matter Experts (SMEs) and solution architects with 15+ years of industry expertise
- 1,400-person years of experience in providing GIS solutions for Energy & Utilities
- Strong capabilities in Zigbee, Driver development, Simulation, Field force automation and Geospatial analysis
- Established process know-how about Design for Six Sigma, Design for Reliability
- Extensive eco-system for manufacturing, global sourcing, regulatory compliances and validation

Solution areas

<p>Home Area Network</p>  <ul style="list-style-type: none"> ▪ Smart appliance – Demand Response Gateway ▪ Zigbee-enabled Product Development ▪ Interoperability Testing 	<p>Advance Metering Interface</p>  <ul style="list-style-type: none"> ▪ Metering & Communication Solutions ▪ Meter Design and Manufacturing ▪ Driver Development for AMI Head Systems ▪ Integrated Smart Meters ▪ Meter Data Simulation
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Efficient Energy Management Solutions



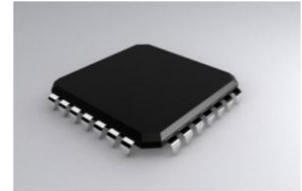
- Solar and Wind Power Integration
- Substation and Distribution Automation
- Efficient IED Engineering
- Micro-grid Solutions
- Battery Management Solutions
- Charging Solutions for Electric Vehicles

GIS & Geospatial Solutions



- Enterprise Spatial Planning and Analysis
- Asset Management and Tracking
- Spatial Business Analytics (Dashboard)
- Field Force Automation (Mobile GIS)
- Remote Diagnostics Solutions (SCADA+GIS)
- ERP + GIS
- Cloud GIS

Sensors



- Smart Sensor Solutions & Analysis
- Sensor Design and Development
- Sensor Network and Automation
- Special Purpose Utility Sensor

Value proposition

- Product innovation using advanced technology solutions, evolving smart grid standards, emerging market needs, Interoperable solutions
- Compliance to Smart Grid security, safety and environmental regulations
- 30-40% reduced time-to-market through modular and reusable designs
- 30% savings through field operations automation

Case examples

- Design and development of pre-paid add-on module for energy meters using unique pre-paid encryption and decryption algorithm
- AMI Head System: Design and development of AMI head further to integrate with enterprise systems
- HMI Development - Power sub-station automation: Customized embedded platform to monitor and control the power substation remotely using SCADA and web based GUI. The protocol supports IEC60870, IEC61850, DNP 3.0, Modbus, Hydran, LTCMap etc.
- Energy meter data simulation: Simulation of real-time meter data based on different type of load scenarios leading to 60% faster and scalable testing of smart grid components
- Field force automation system: Development of a mobile-based GIS field data collection system for a government agency resulting in 50% reduction in field effort
- Asset information management system: Development of web-based spatial information management system for a government agency reducing the cycle time by 30%

Contact

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