

KLG Systel Ltd. SMART ENERGY MANAGEMENT SOLUTION & OPC UA

KLG Systel Ltd. is a US\$ 100 million company quoted on the NSE (India) and the Luxembourg Exchange, Europe. The company has worked in the Power Sector for the last fourteen years gaining and imparting knowledge and expertise in deploying IT solutions. Connectgaia.com is the product of KLG Systel's relentless R&D in developing a solution to what is acknowledged as a global problem.

Connectgaia.com is an end to end smart energy management solution which provides user, whether industrial, commercial or utility, many advantages through powerful reports and in-built control methods.

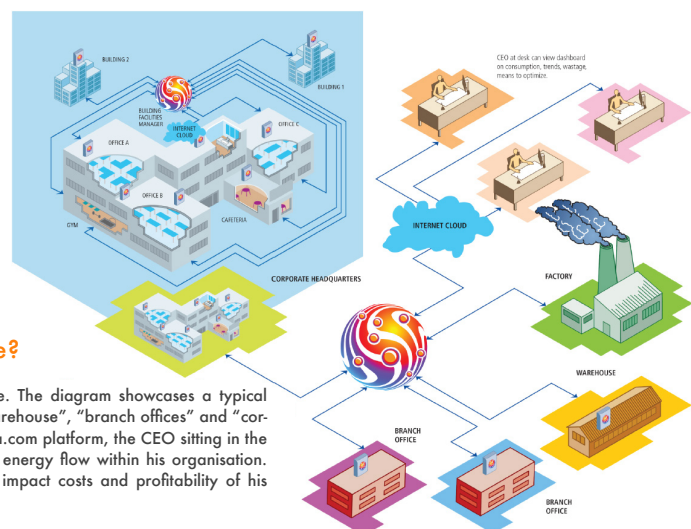
Key features of connectgaia.com solution

- Connectgaia.com solution is a state of the art smart energy management system that leverages advanced metering, sensors, proven IP communication technologies and a robust IT backbone to build intelligence into the electricity network across the enterprise (multi-location).
- Data is available on real time basis just at the click of a button from anywhere across the globe, thus giving the user complete control over the entire enterprise.
- Reports provide technical acumen to the user through proven methodologies and sophisticated metering and instrumentation.
- Remotely switch on/off equipment or schedule their operation based on events.
- The entire structure is scalable, thus taking care of future changes/expansions.
- Can interface with varied equipment, sensors and controls thus catering to entire structure.



How connectgaia works for your enterprise?

Imagine a scenario, similar to the illustration alongside. The diagram showcases a typical business situation with multiple points like "factory", "warehouse", "branch offices" and "corporate headquarters". Operating within the connectgaia.com platform, the CEO sitting in the corporate office can visualize, monitor and control the energy flow within his organisation. This knowledge empowers him to make decisions that impact costs and profitability of his business.



The solution provides dedicated access to authenticated users only by way of built in levels of security which guards against the possible mischief of users or spurious operation of controls due to over-sight. The system is self-sufficient, having multiple levels of alarms generation (each with the option of annunciation or reporting), reports of on/off control history, list of schedules, limits and deadbands, and capability to get back online when power is restored.

The most obvious and direct benefits of connectgaia

- Generation of recommendations to improve quality of power.
- Real time monitoring and measurement of energy usage.
- Energy planning and load forecasting.
- Energy accounting and balancing to check wastages and theft.
- Remote switching on and off of equipment, machinery or appliances.
- Monitor equipment performance or system behavior.
- In-built rule engine which allows users to do event based scheduling of parameters and equipment.
- Communicates with temperature, pressure, light and all types of sensors.
- Real time generation of alarms and user prompts.
- Ensures utilities comply with power delivery service levels.
- Bill verification.
- Allows users to participate in Demand Response with utilities and power network.
- Allows for time of day tariff based incentive program.
- Detects the need for load shedding.
- Guide to optimize the need for captive power plant generation.
- Stimulates the economic development of an organization.
- Contributes to saving energy resources.
- Reduces global warming.

We at KLG Systel are developing a new product which is powered by Intel © Atom™. As OPC is a standard for the communication of real-time plant data between control devices from different manufacturers. We have chosen PROSYS to implement OPC UA support. Before purchasing the SDK, we carried out Proof of Concept and their product support team helped us.

Benefits of OPC UA within our product

- Ease of use.
- Plug and play.
- High reliability and redundancy based on new standards of authentication, authorization, encryption and data integrity.
- Enhanced performance.
- Multiplatform support with Java communication stacks.
- Easy migration plan for existing OPC products to the OPC UA technology.

Prosys OPC UA Java SDK

- Prosys OPC UA Java SDK is an easy to use Java API, which has an abstraction of complexities of OPC Foundation Java Stack.
- The response time of PROSYS product support team is outstanding.

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