

## Integrating Technology



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### Overview

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#### ■ Challenge

*To utilize technology to develop a cost effective web based solution to view, control and monitor energy consumption remotely and meet the growing demands of various network connected field devices.*

#### ■ Solution

*A low cost, hassle free solution called Connect Gaia which minimizes required communication bandwidth and provides a well tested and widely used communication protocol to monitor and control energy consumption remotely.*

#### ■ Key benefits

- *Assured data delivery*
- *Web based tool to track & manage circuit level energy consumption.*
- *Online advisory tools for energy optimization such as peak load management, load balancing, effective utilization of self power generation etc.*

Today IT services, Software products, IT enabled services, and e-businesses are a good source of business for Indian companies. In addition to the export market, all of these segments have a domestic market component as well. There were a number of opportunities opening up for firms to develop business on the domestic front to develop the IT initiative.

Indian companies realize that investing in technology can bring efficiency and reduce cost. This factor compelled with India's strong economic growth, created opportunities for IT firms in India itself to increase business thus putting the limelight on niche players who provided solution to both Public and Private sector Companies.

### About KLG System

Headquartered in Gurgaon, India KLG is an ISO 9001 certified public limited company whose vision is "To become a leading global player in knowledge capital for the entire span of the organization's life cycle". It boasts of a team of over 200 domain experts and has offices spread across various big cities in India.

KLG is a proactive knowledge based company that is continuously engaged in 'over the horizon' R&D activities to enhance its software & consulting offerings.

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## Key Components

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- IBM WebSphere Application Server
- IBM WebSphere Message Queuing Telemetry Transport (MQQT)
- IBM WebSphere Business Integration Message Broker
- IBM Web Portal Software
- IBM WebSphere Application Server
- IBM Tivoli Composite Application Manager for WebSphere

An important focus area of its research efforts is to customize software applications as per the needs of various client organizations. KLG Systel is one company that is an enabler for growth of Indian Private and Public Sector Companies.

### Obstacles Faced

KGL believed in providing solutions to the customers which were cost effective and at the same time robust and scalable. However they noticed that electric consumption which is a must for every organization was taking up a high percentage of the overall costs of the firms. This was reducing the profits of these organizations as well as KLG scope of additional business.

Electric consumption is an integral part for the survival of any organization and so KGL had to develop a solution which would help the firms to monitor their electric consumption and reduce costs and increase revenue. It should provide information about advanced metering, complex distribution networks, dynamic pricing mechanism, and irregular power shedding etc integrating advanced technologies. Given the competition in the market from various other competitors, they had to develop a solution quickly which was affordable and reliable.

### The Solution

Data from remote locations is proving increasingly important as organizations face stronger competitive pressures to closely monitor and control aspects of their business. Keeping this in mind KLG set about doing extensive industry research and collaborated with IBM to design a comprehensive solution to meet their specific requirements.

IBM Message Queuing Telemetry Transport (MQQT) protocol was involved to develop a low cost web based solution called "Connect Gaia" to view monitor and control the energy consumption remotely. Built on IBM's proven and tested communication protocols, database and middleware technologies it enabled to

create a economical web based solution to measure, visualize, analyze, control and save electricity consumption anytime anywhere across the enterprise.

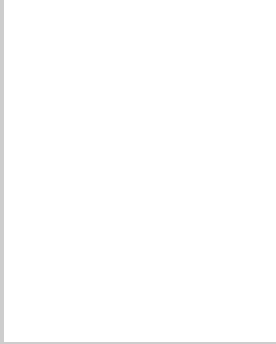
MQQT uses TCP/IP as the transport layer and is compatible with today's Internet and Intranet infrastructure. This allows monitoring front end applications from any remote site thus enabling remote load shedding or ad-hoc switching ON/OFF of devices. MQQT is also flexible in its approach and can be programmed by the administrator according to the needs of the enterprise applications or the bandwidth.

MQQT also integrated with WebSphere Business Integration Message Broker which helps to unite different transport devices to create a seamless messaging fabric irrespective of any device or platform it is installed, leading to high throughput and availability.

IBM Web Portal Software provided a complete set of portal platform services with the dependability and scalability demanded by KLG. It helped to build a highly scalable web portal that enabled quick user access to application, processes and helped to track & manage circuit level energy consumption.

### **The Benefits**

- Assured end to end data delivery.
- Web based tool to track & manage circuit level energy consumption.
- Online advisory tools for energy optimization such as peak load management, load balancing, effective utilization of self power generation etc.
- Remote meter reading & two way communication using GPRS technology.
- Hassle free installation of SG61 Technology based advanced metering & controlling device at your premises.
- Better management of available power.



*“...the solution was economical & reliable by using IBM Websphere MQTT to communicate reliably with an array of network connected field devices to help consumers monitor & control energy consumptions remotely.”*

*Kumud Goel,  
MD, KLG Systel Ltd.*



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