Hi,

We are pleased to share with you the June edition newsletter. This edition focuses on **Advanced Metering Infrastructure** solutions.

**Introduction**

Kalkitech’s metering solutions span over the entire power supply chain from generation to transmission and distribution. Our technical expertise and indepth knowledge on metering requirements of utilities and field level communication channels as well as protocols like DLMS/COSEM, Modbus and ANSI can help create a **Smarter Grid**.

**Transmission Grid AMR**

Grid Metering Solutions are required by the utilities to collect data from all energy exchange points through special energy meters. Kalkitech Grid metering system helps the utilities to automatically read the data, remotely configure the system, collect load data and further manage, process and analyze the gathered data to produce the required reports and graphs. This solution provides the utility with significant cost savings in the area of outage management, revenue protection and asset management.

**Key Benefits:**

- Input for utility revenue management, energy accounting
- DCU can serve instantaneous meter data to SCADA
- Combine with multiple functionalities like Disturbance Record collection from protection relays, remote configuration of substation devices, remote asset status monitoring
- Time drift correction
- Compatibility with OPGW, GPRS, CDMA, VSAT, MLLN based communication
- SMS based configuration of remote devices

**DLMS/COSEM Training Programs**

- July 24-26, 2012, Colombia - SA
- November, 2012 Mumbai - India

To know more on the DLMS training topics [click here](#) or send in your enquiries to training@kalkitech.com

**Data Security in AMR/AMI**

Utilities today try to address latest smart grid functions such as Home Area Automation, Demand Response, Remote Connect/ Disconnect, Distributed energy resources and meter firmware upgrade over the air. In the overall scheme of things, this makes IT and Telecommunication equally important like Power system engineering. The risks associated with Information technology such as cyber security can have a large impact on the entire system.

[Read More](#)
Implementation Case Studies:

Grid Metering for Monitoring & Energy Accounting Solution:
A State Government run Power Transmission Company operating more than 1,00,000 ckt km in India required an Automated Meter Reading (AMR) system that will feed data to the Monitoring and Energy Accounting (MEA) System for each Open Access (OA) customers connected to the grid. The total number of ABT metering points were close to 300 locations and the stakeholders included generation companies, transmission utility, distribution circles, CPPs, IPPs and distributed power generation operators as well as EHT consumers in the state. Kalkitech solution involved customized AMR Client/Server, Data Concentration Units (DCUs), MIS reports and ABT software as part of the MEA system.

Substation AMM project in Middle East Asia:
Kalkitech implemented an integrated Automated Meter Management (AMM) System to collect data from all energy exchange points, transmission and sub-transmission substations and power plants from all over the country. The system is capable of automatically reading and remote configuring, collecting load data, managing, processing, analyzing gathered data and producing the required reports and graphs as required by the client. Several features including web based reports and graphs introduced in the system has helped in achieving significant utility operational cost savings in the areas of outage management, revenue protection and asset management.

Distribution AMI/AMR

AMI for Consumer Billing
A distribution utility is typically the final touch point with residential and industrial consumers. Apart from delivering quality power to the consumer premises, it manages consumer expectations, environmental implications and billing to generate revenue for the entire stakeholders in the power eco-system. Kalkitech's AMR/AMI Solutions for consumer metering helps gather real-time and actionable data for industrial (HT & LT bulk), commercial (LT bulk) and residential consumers.

The system supports a wide range of the distribution utility requirements like:

- Multi-utility Metering
- Interoperability
- Scalability
- Robustness
- Security
- Demand Response
- Easy Integration with HAN

AMI for Distribution Loss Accounting
With electrical power demand increasing year by year, energy balancing and loss accounting has become a key focus area apart from improving the generation capacity. Distribution companies across the globe have been mandated to reduce Aggregate Technical & Commercial (AT&C) losses, which reflect the difference in energy inputted into the system and the final billed energy.

Kalkitech solution for distribution loss accounting includes Substation feeder monitoring, Distribution Transformer Monitoring and HT monitoring to analyze the technical loss aspects as well as become a critical input to the SCADA/DMS systems.

Powel ELIN
Kalkitech’s technology partner Powel is a leading European software company that provides data collection and data management solutions. Powel ELIN is a vendor independent system that collects and manages the consumption data from virtually any utility meter or sub-meter using open protocols standards as well as supplier proprietary protocols.
DLMS Solutions
Kalkitech has been continuously involved with the DLMS / COSEM specifications right from its inception, providing the most complete set of solutions for the industry. An active member of the DLMS User Association as well as working committees of DLMS companion standards, Kalkitech has been able to apply its expertise in this field to come up with superior products and solutions for its customers.

IS15959:2011 (Indian Companion Standards for DLMS)
This companion specification outlines the selections of DLMS/COSEM choices related to standard objects and services adapted to Indian conditions with the objective of providing for interchangeability as opposed to just interoperability. The DLMS/COSEM standards provide for many different mechanisms to perform the same metering protocol functions like tariffs, schedules, security etc. and the presence of these choices, while improving the flexibility of the protocol, actually increases the complexity of achieving true interoperability and interchangeability amongst their implementations. The ICS enforces specific selections and choices, thereby ensuring an advanced level of similarity for meters adhering to this specification and being deployed in India.

Implementation Case-study

MIOS & DLMS Integration for Distribution Utility:
An Indian distribution utility required a DLMS extension for their existing AMR system based on MIOS. Their existing system had a web based Meter Data Management (MDM) software designed, developed and maintained by their in-house IT department. This was used for billing and monitoring of meters installed at consumers, transformers and feeders. Kalkitech implemented a new metering head end system for DLMS meters with no change in the software interface between utility application and head end system as compared to existing MIOS based systems. The new system was designed such that it communicated with old MIOS based meters as well as with new DLMS meters.

Our Valued Partners
Kalkitech’s partners are spread across the different regions of the world. Few of our valued partners are listed below.

PTI SA, Colombia: It is a firm dedicated to engineering, consulting, installation, testing, commissioning, import and distribution as well as being representative of major international companies in the areas of systems analysis software for electrical equipment for power systems, telecommunications and automation.

A.I. Corporation, Japan: Solutions vendor, provides marketing, development and engineering services, focused on the engineering of software for embedded systems, communications and networks. While the communication systems are rapidly growing in the complexity and size, requiring shorter time to market and higher quality, employing emerging new technologies in a timely fashion, the mission of AIC is to provide flexible and wide range of solutions to the today’s requirements.

ELEKTRAKOM, Turkey: aims to give the best service about SCADA/RTU systems, energy automation, energy quality and automatic meter reading systems. For this purpose, collaboration with Kalkitech and national institutes is carried to develop customer-focused R&D solutions and achieve the upward trends in energy area.

Kalkitech to co-exhibit with POWEL at Metering Billing / CRM Europe 9 - 11 October, 2012 - Amsterdam

Fix a Meeting

Click here to avail a 25% discount for the 3 day technical conference

Customized Billing & Reporting Softwares
Typically the Billing requirements are highly dependendant on the requirements of the utility and consumers. Kalkitech Solution is tailored to fit in the Client’s unique Business Process, based on the functionality prioritized by the consumer. Different modules can be included for Billing, User Management, Database Interface, Payment and Reporting as required.

Case-Studies

AMR for Generation Company ABT
A State Government run Power Generating Company in India with total installed capacity of close to 2000MW required to set up a state of the art Generation Control Centre (GCC) to continuously monitor on-line plant parameters & plant performance for optimization of input cost and UI revenue maximization. Kalkitech provided the entire solution which included an AMR system for implementing ABT.

Grid Metering for ABT
Kalkitech successfully performed Automated Energy Meter Reading from various substations involving more than 1000 energy meters for the client. Data from Energy Meters of different vendors were retrieved and was made readily available for ABT software. Energy Accounting and Analysis was also done up to feeder level.

White Paper
Building Blocks of Smart Metering
Smart grid is the buzzword among all energy sector stake holders across the world. This paper covers all major topics under the smart metering umbrella such as Home Area Network (HAN), Smart Meter, Intelligent Modem, Data Concentrator and considerations for AMR/AMI.

IEC 61850 Training Program
8-10 August, 2012
Bangaluru, India
A three day comprehensive seminar plus training workshop on IEC61850 standards for Substation Automation.