The Real Cost
Of Energy Management

Retailers have used energy management systems (EMS) for years — but are they generating the ROI they expected?

by Erin Harris

Dan Kubala, VP of marketing, Site Controls

Many retailers have invested millions in EMS hardware, but they still cannot attain the actionable information needed to effectively manage their deployment. I talked to Dan Kubala, VP of marketing at Site Controls, to get his take on the challenges retailers face when operating and deploying EMS. Kubala gauges the level of interest in energy management, and he addressed my questions regarding energy management and its association with cloud computing.

What challenges do retailers face in implementing and operating an EMS deployment?

Kubala: One of the biggest struggles retailers face involves enterprise data visibility. Most systems do well in a pilot (5 – 10 sites) or regional deployment (30 – 50 sites). But, somewhere between 75 and 100 locations, manual or semiautomated processes simply break down, and they need an enterprise-class system to effectively manage all of the data generated by real-time telemetry on dozens of devices installed at each site. As a result, retailers are quite often faced with an information "black hole." There is too much data to process without an efficient means of filtering through the noise to determine real business issues and trends, which require action.

Related to the issue of data visibility is the challenge of ROI, or lack thereof. Because of the lack of enterprise management tools, many retailers haven't been able to maintain the energy savings they initially experienced after implementing an EMS. Worse yet, many have no idea if they're saving any energy, since they have not conducted ongoing measurement and verification analyses to quantify the magnitude of energy reductions.

The third challenge is that many companies are being forced to migrate or upgrade technology platforms because of functional obsolescence. Companies must reevaluate their entire deployed technology base and consider a range of options for managing through a wholesale transition. For companies that have built entire business processes, support infrastructure, and staff expertise around a particular system, this change can be very disruptive — and costly.

There is a fair amount of talk about "cloud-based" computing. What does this mean, and how will it affect energy management?

Kubala: If you use Gmail, SalesForce.com, or E*TRADE (or any online investing service) or do your personal banking online, you are using cloud computing. When using applications like these, your computer is not actually housing the computer power nor is it storing your files and data in your local hard drive. Instead, your computer is simply a data terminal that is accessing, over the Internet, massive computing power and massive data and file storage that is in a remote server or collection of servers. It is substantially cheaper to access one secure remote system (or a string of remote server systems) than to do so on your work site. The "cloud" metaphor, per se, is merely a way to describe something that seems to float out there in virtual space, yet is very likely in a hardened and secure location.

One key advantage of cloud-based systems is that they do not require customers to bear the substantial costs associated with licensing, installing, maintaining, and supporting an internally hosted software and server IT infrastructure. This avoids significant IT deployment, hardware, administrative, and maintenance costs required with internally hosted systems.

More importantly, cloud-based solutions provide retailers access to industry best practices such as real-time energy trending, operational dashboards, intelligent events, and role-based KPIs (key performance indicators). With these types of tools, information from legacy EMS units can be presented to energy and facilities managers in an intuitive, easy-to-use manner that allows them to focus on a few high-priority items without being overwhelmed by meaningless streams of alarm data. ∎