ABB Reduces Service Delivery Costs and Improves Customer Responsiveness

The goal of asset optimization is near-zero downtime for manufacturing, mining, farming, services, etc., the ability to model optimum machine performance and monitor real-world performance degradation using sensor data. Ultimately it is the creation of machines that learn, self-optimize, and even repair themselves — converting emergency repair visits into routine service calls. ABB and nPhase have partnered to provide that connectivity and visibility to industrial and energy infrastructure.

ABB’s Circuit Breaker Sentinel is a device that provides utilities and industrial customers with real-time visibility of current equipment status and allows them to forecast future maintenance requirements. The device tracks asset performance and wirelessly transmits this data via nPhase over Verizon’s CDMA2000® network to ABB’s Asset Insight web platform where it is analyzed and displayed in a useful way for the customer. The enhanced visibility offered by this solution enables users to keep careful tabs on the health of their equipment, allowing the customer to avoid unscheduled outages and better comply with environmental regulation.

When machines are networked and remotely monitored, and when their data is modeled and continually analyzed with sophisticated systems, it’s possible to go beyond mere “predictive maintenance” to “prognostics”—the process of pinpointing exactly which components of a device or machine are likely to fail, and when.

For ABB, the costs of developing and deploying this system has had a very short pay-back period — less than eighteen months — primarily driven by on-line handling of over 70% of device alerts which, in turn, has enabled a 50% reduction in overall service time.

The ABB solution generates significant cost savings as users can remotely monitor dispersed assets – re-moving the need to send personnel to “check-up” on distant assets and infrastructure.

The device is currently installed with utilities and industrial customers such as Con Edision of New York and has received very positive feedback in its initial rollout.

Sources: Harbor Research, ABB and nPhase, Inc.