



facilityCARE

The Solution for Smarter Buildings

Converting your data into knowledge and savings[®]

How can facilityCARE benefit me?

THE PROBLEM

As a building owner and operator, you are faced with an ongoing series of challenges.

- ◆ Increasing energy Prices
- ◆ Decreasing Operating Budgets
- ◆ Unpredictable Demand Charges
- ◆ Reductions in Manpower
- ◆ Demand for better services

Traditional Building Automation Systems provide alarms when equipment fails and are not capable of correlating the multiple interactions between the equipment, and the environment and the load to tell the true story of the building and its performance. Buildings are far too complex, with too many data points and too many interacting systems for this to be done by a human. “The truth gets lost in the overwhelming availability of data.” So, how can you truly tell how your building is operating and maximize its potential?

THE SOLUTION



No more hunting through Alarms, Graphs, Trends and Spreadsheets to uncover how your building is operating, or where energy is being wasted.

facilityCARE leverages your significant investment in those underlying systems and uncovers the hidden Energy and Operational Data within them to unlock the true potential of your facility by transforming this mass of information into Actionable Intelligence.

- ◆ Easily, Quickly, and Efficiently
- ◆ Automatic true data visualization and system analytics
- ◆ No software, hardware or servers to maintain
- ◆ Add or eliminate modules as your needs change

WHAT IS facilityCARE

facilityCARE is the first Open, Cloud-Based System that provides true Data Visualization, and System Analytics for any underlying Building Automation or Power Monitoring System.

The Analytics Engine of facilityCARE far surpasses what any traditional Building Automation System can accomplish. No more hunting through alarms, graphs, trends and spreadsheets to uncover how your building is operating or where energy is being wasted!

Continuous Commissioning

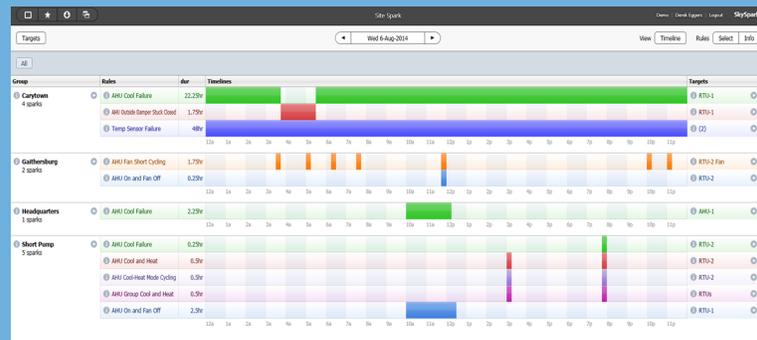
Advanced Fault Detection & Diagnostics

Reporting

Energy Analytics & Alarming

facilityCARE’s Analytic Engine combines multiple data sets and presents them in an intuitive, graphical presentation that is easy to view and understand. Enabling you to find patterns, relationships and issues you would not otherwise be able to discover.

In addition, facilityCARE’s Analytics Engine uses “Intelligent Agents” to comb through the vast trove of data and run multiple algorithms to find energy wasting equipment damaging operations.



For example: One of the “VAV Box Agents” will look for and find issues with VAV Boxes ranging from Slipping Damper Actuators, to Plugged Valves, to failed airflow transmitters.

Multi-System and Global Site Support



By leveraging the power of the Cloud, facilityCARE is easily scalable, and can be used to provide actionable intelligence for a single building, a whole campus or across an entire enterprise's global real estate portfolio. Because facilityCARE is designed as an open-protocol, vendor agnostic solution, it is able to easily integrate to your portfolio of existing intelligent building systems ranging from Metering, to BAS to Lighting and beyond.

facilityCARE is designed in a modular manner. You only pay for the models that you need. Since it is cloud based, you don't need to worry about server capacity and software and hardware maintenance. You can add or eliminate modules and buildings as your needs change.

1 ENERGY ANALYSIS MODULE

The Energy Analysis Module provides an easy way for an energy or facility manager to view electricity, gas, water or any other utility usage data across multiple submeters, buildings, and sites. It provides powerful analysis tools by allowing normalization of data across your portfolio of buildings by weather conditions or by square footage. You can easily compare different facilities and benchmark their performance by correlating energy usage to occupancy, weather, or square footage, allowing you to easily identify and then target resources at the "worst offenders" in your portfolio.

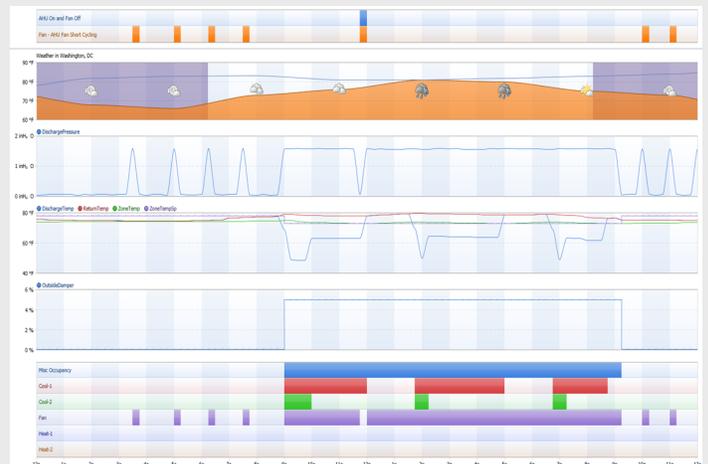
2 EQUIPMENT OPERATION MODULE

Energy consumption data really isn't enough on its own. The Equipment Operation Module adds the ability to visually display equipment operation correlated with the associated energy consumption. Take a global view of equipment operation or easily drill down to view run status, cooling status, heating status. For further diagnostics you can add setpoints and actual environmental conditions all on one screen to get a complete and holistic view of the operation of your facility.



3 FAULT DETECTION / DIAGNOSTICS AND CONTINUOUS COMMISSIONING MODULE

This module takes Analytics to the highest level and uses the power of facilityCARE to provide Fault Detection & Diagnostics as well as automated Continuous Commissioning.



The Analytics facilityCARE delivers aren't alarms, they aren't reports, and they aren't a series of Graphs. The Analytics are actionable intelligence delivered in the form of clear, understandable views that tell the user exactly what the issue is, when it occurred, how long it lasted and even the cost of the issue.

This is performed by using Intelligent Agents (algorithms that mine the massive amounts of data received from the various disparate building systems) that find operational anomalies or "Sparks", which are actively presented to the user in the form of a "push" - emails or texts, or in the form of a "pull" - where the user logs in and checks the daily issues.

Drive efficiency through Smarter Buildings today



- ◆ **Cloud-Based**
- ◆ **Mobile Device Enabled**
- ◆ **Compatible with hundreds of different building systems and manufacturers**
- ◆ **Easy Implementation**
- ◆ **Ability to gather, analyze, act upon data from your various building systems**
- ◆ **Increased Efficiency and Financial Returns**
- ◆ **Ongoing Monitoring Based Commissioning (MBCx)**

MODULES	ENERGY ANALYSIS	EQUIPMENT OPERATION	FAULT DETECTION
KEY PERFORMANCE INDICATORS	X	X	X
METERS	X	X	X
SUB-METERS	X	X	X
WEATHER	X	X	X
WEATHER NORMALIZATION	X	X	X
Ft2 NORMALIZATION	X	X	X
FACILITY COMPARISON	X	X	X
DATA EXPORT	X	X	X
EQUIPMENT OPERATION		X	X
HEATING MODES		X	X
COOLING MODES		X	X
ENVIRONMENTAL PARAMETERS		X	X
SETPOINTS		X	X
STANDARD DIAGNOSTICS			X
TERMINAL BOX PERFORMANCE			X
ACU PERFORMANCE			X
AHU PERFORMANCE			X
CHILLER PLANT PERFORMANCE			X
HEATING PLANT PERFORMANCE			X
LIGHTING			X
ELECTRICAL LOADS			X
CUSTOM SITE-SPECIFIC DIAGNOSTICS			X

** The modular approach of facilityCARE allows you to select the modules that wbest for your specific needs and business initiatives.*