eMonitor™ c-Series

Cost-Effective Energy Management...finally

Small commercial facilities in general use 30% more energy per square foot than larger facilities. Restaurants use *3 times as much* on average.

Have you ever...

been unpleasantly surprised when you received your energy bill – and wondered where all those dollars are going?

discovered that lights or equipment have been left on after business hours – or found equipment consistently turned on before it needs to be?

had heating and cooling systems operating at the same time – or fought with staff over HVAC settings?

experienced equipment failure without warning – with a resulting out-of-pocket loss or reduction in productivity?

been unable to pinpoint why some facilities seem to use a lot more energy than the average – while others use lots less?

looked at energy management systems – but found that they were complex, didn't fit your budget, and had a very long payback?

Cost-Effective Energy Management for any small commercial operation where the cost of energy is a pain point but the scale does not support a large investment.

The eMonitor™ c-Series combines remote monitoring of all electrical loads in a facility with remote control of HVAC systems and proactive alerting, to transition energy from a non-controllable to a controllable expense – empowering managers and putting you in total control.

The eMonitor delivers a compelling ROI: it reduces energy costs; helps avoid equipment problems; enables cross-facility benchmarking; and delivers a range of other benefits.
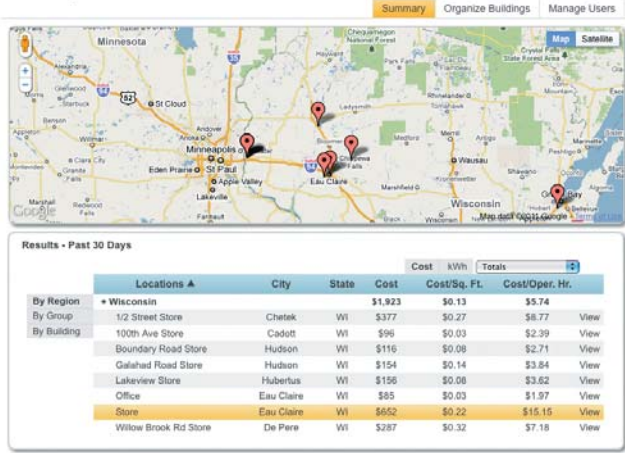
e*Monitor*™ Software Services

- Determine where energy $ are going
- Identify power factor problem areas
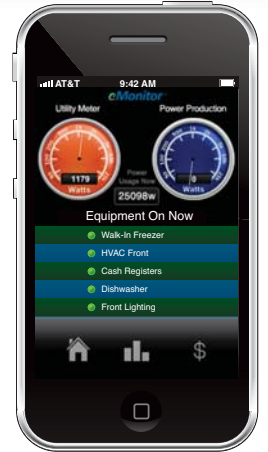- Determine the contributors to demand charges

- Identify what is on and when
- Project monthly costs in time to do something about them
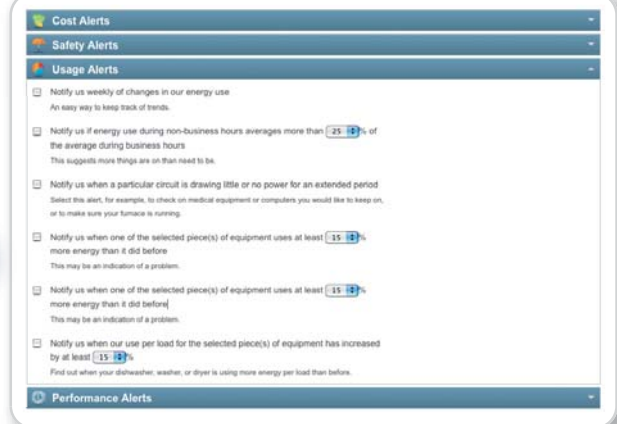- Track carbon footprint

- Identify top performers and laggards
- Pinpoint most effective equipment configurations

- Control costs during non-business hours
- Quickly determine when heating & cooling systems are on at the same time
- Identify equipment not operating properly
- Be warned about overloaded circuits – before they blow

- Remotely control multiple thermostats from a central location
- Ensure settings are correct – up to 12 time periods/day
- Control cycling to reduce costs
- Leverage historical data to optimize control strategies

*e*Monitor™ Features & Benefits

Features

- Remote centralized monitoring of all electric loads with wireless communications

- Single or 3-Phase power; 120V, 240V; 480V

- Proactive cost, usage, safety and performance alerts via text & e-mail

- Remote HVAC control

- 3 stage heat – 2 stage cool and humidifier

- Renewable energy monitoring

- Expandable to monitor & control additional equipment

- Multi-facility benchmarking at facility and equipment level

- Delivered as Software as a Service via the web and mobile devices – no servers required

- Intuitive interface – requires no training

The eMonitor c-Series is designed for smaller commercial facilities, typically those under 25,000 square feet. It is ideally suited for:

- Restaurants, including Quick Service Restaurants
- Convenience Stores
- Health Clinics
- Health Clubs
- Small Office Buildings
- Retail Stores
- Small Schools

The eMonitor can play a key role in making a building greener and more environmentally efficient.

The system combines granular, wireless monitoring of electric circuits with remote HVAC control, proactive alerting on a range of energy usage, cost, safety and equipment performance issues, and real-time building displays.

Centralized and ubiquitous data collection, cloud-based computing, advanced analytics, and an effective user experience all contribute to low cost but a high degree of effectiveness.

Benefits

- Turn energy into a controllable expense that can be part of management incentives

- Be warned about impending budget overruns in time to do something about them

- Determine where & when energy $ are going to guide decision-making

- Avoid energy being used inefficiently during non-business hours

- Control thermostats centrally to ensure balance between comfort and expense

- Validate equipment performance and results of maintenance programs

- Avoid downtime and revenue loss by identifying potential equipment problems before they occur

- Identify equipment contributing to demand and power factor charges so corrective action can be taken

eMonitor™ c-Series Architecture

Additional Sensors and Controls

Analytics Engine

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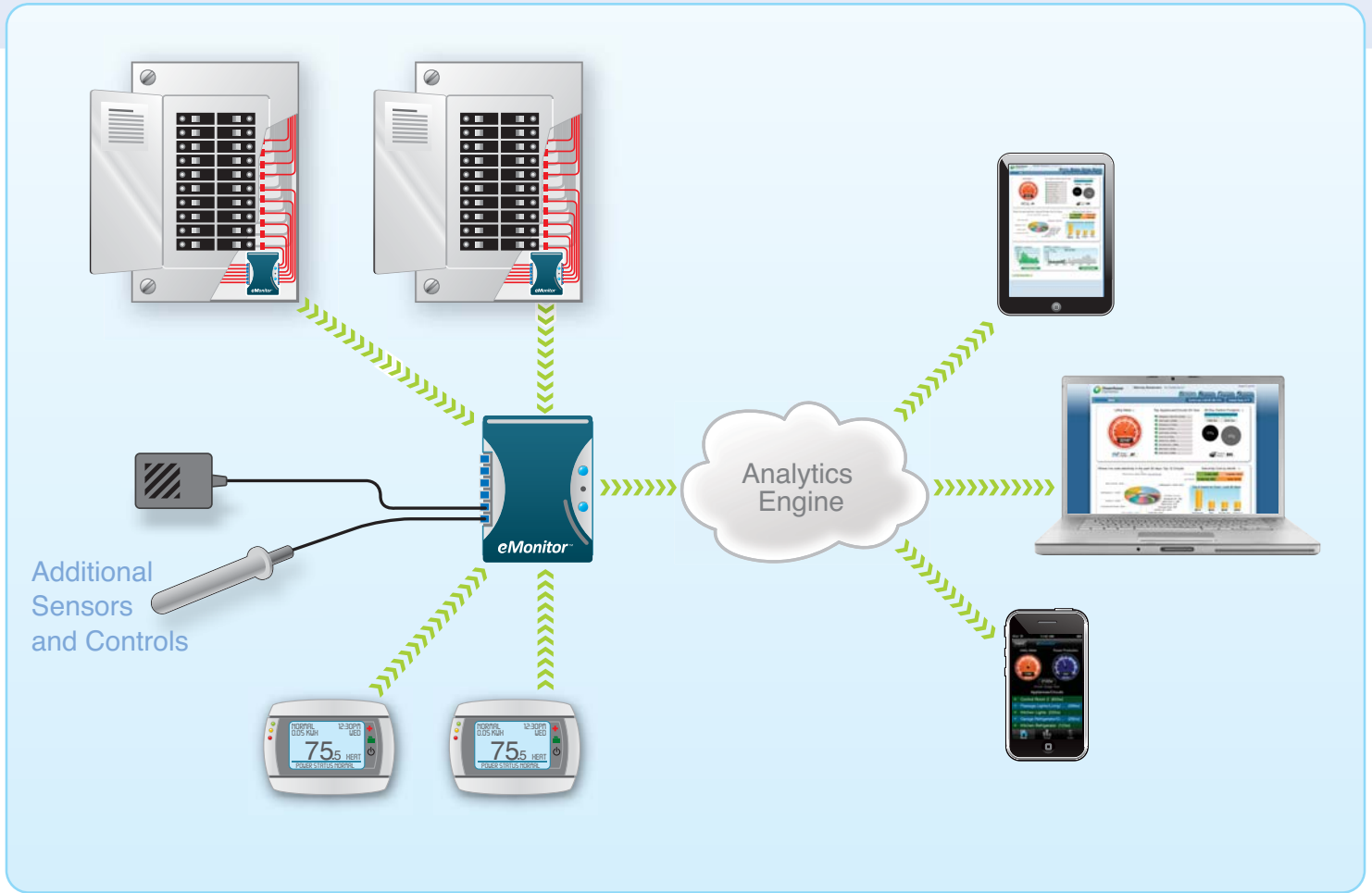
eMonitor Base and Expansion Units (inside panel) Connections

- 15 CT sensor ports
- Six-pin eMonitor expansion module (xPod) connector (up to 3)
- Each xPod: 10CT sensor ports
- Modular power connector (120V AC)
    - Connects to 120V breaker or to optional stepdown transformer for 277V operation

Communication Protocols

- eLink Wireless 2.4GHz connection to eMonitor Gateway
- RS485 link protocol to pin eMonitor expansion module (xPod)

Power Requirements

- 120V AC, 60 Hz 2.5W

Environmental Specifications

- L x W x H: 6" x 2" x 1"; Weight: 4oz.
- xPod: L x H x W: 3" x 1.5" x 1"; Weight: 2oz.
- Operating temperature -10º C to +60º C (14º F to 140º F)
- Humidity 5% to 95%, non-condensing

eMonitor Gateway (outside panel) Connections

- 1 x 10/100 RJ-45 Ethernet port
- S1 x High Speed RJ-14 serial port
- 3 Analog inputs – wire pair +/-2V; 3 digital input/outputs
- USNAP 2.0 modular connector

Communication Protocols

- TCP-IP via Ethernet (802.3) 10/100base-T
- Wi-Fi/802.11/b/g/n
- Local via high speed serial port
- ZigBee (802.15) mesh networking (optional USNAP module)

Power Requirements

- 120V AC, 60 Hz

Environmental Specifications

- L x W x H: 5" x 3" x 1.5"; Weight: 6 oz.
- xPod: L x H x W: 3" x 1.5" x 1"; Weight: 2 oz.
- Operating temperature -10º C to +60º C (14º F to 140º F)
- Humidity 5% to 95%, non-condensing