

# Plugging Into Energy Management to Achieve Conservation Goals

To achieve and sustain a federally mandated 30% reduction in energy use by 2015, agencies must adopt a systematic approach to energy management, to overcome tight budgets, incompatible technologies and changing priorities that can divert their focus from conservation goals.

Since the introduction of electrical wiring in buildings 125 years ago, the use of electricity has ballooned beyond lighting to include devices that previously couldn't be imagined, such as heating, air conditioning, refrigeration systems, coffee makers, trash compactors, access control systems and computers. All of these devices provide energy information through proprietary data protocols in unique data formats. How can federal agencies get the information they need to lower energy use? Also, what can they do with this information once they get it?

Systems that reduce energy usage, also called Energy Management Systems, allow federal organizations to access information from each system or device that consumes energy, analyze the data and act upon the information to continuously lower energy use. It's clear, 'you can't measure or manage what you can't access.' Cisco offers the technological solution and services to aid government organizations in achieving and sustaining the mandated 30% energy reduction requirement.

Cisco has acquired Richards-Zeta Building Intelligence, Inc., manufacturer of the Mediator, an IP-based building integration solution, to access and manage data on a wide range of energy-consuming systems. The high speed IP network that securely provides voice, video and data services can also be used to manage energy. For federal agencies constantly in search of ways to cut costs and do more with less, the ability to implement centrally controlled energy efficient buildings offers great promise as a means to achieve cost and energy reductions.

Lowering energy usage requires agencies to access data on the use and status of energy-consuming systems, analyze the data to reduce peak use, correlate among systems to ensure they don't work at cross purposes from an energy usage perspective, and ensure the systems function efficiently, to reduce power and extend system life cycles.

To their credit, federal agencies are already adding Energy Star systems, and are starting to investigate alternate energy systems,

such as solar, wind or geothermal solutions. It's critical these systems are integrated into an Energy Management System. Cisco's Mediator ensures this integration can happen quickly, without waiting for a proprietary solution to be developed.

As regulations for energy use grow and utility companies debut Demand Response programs, the flexibility offered by Cisco's Mediator will allow federal agencies to meet a 3% per year reduction and ultimately achieve the mandated 30% energy reduction goal by 2015.

Achieving a single 3% per year reduction is possible via the implementation of improved insulation, new windows and training to increase employee awareness. Getting to, and sustaining a 30% reduction, however, requires a systematic approach to energy management that enables access, analysis and the ability to act on energy data through an intelligent network. Cisco's Mediator provides the framework federal organizations can use today to centrally control and manage all devices that consume energy in a building.

To reduce its carbon footprint, improve energy efficiency, utilize renewable power and invest in carbon offset projects, Mountain View, CA based Google Inc., has enlisted Cisco's Mediator to integrate, normalize and move data to the IT network and facilitate real time remote monitoring and control of energy consumption, HVAC, safety and security functions.

Harnessing the power of Cisco's IP network, along with solutions created by Cisco's industry partners, agencies can improve the intelligence of federal buildings and environments. Imagine bathroom fixtures that automatically dispatch maintenance staff when there's a need for more paper towels or soap. Or when a building alarm sounds, digital messaging systems will display information on the best evacuation route in the event of an emergency.

Cisco offers comprehensive networking, as well as voice, video, data and mobility solutions, coupled with the highest-rated service and support in the industry. Whether modernizing an existing building or architecting a new facility, Cisco's energy management solutions can connect government buildings to the power of the Internet. With Cisco's help, federal organizations can meet the mandate, reducing energy consumption by 30% and transforming operations by leveraging network investments to cost-effectively achieve mission goals.



For more information, please visit [www.cisco.com/go/govcre](http://www.cisco.com/go/govcre), or call (866) 899-0184.