



Volkswagen research and design facility, Belmont, California

## EXPECT MORE FROM YOUR LIGHTING

Redwood Systems powers enhanced building performance through lighting. Achieve best-in-class energy savings from commercial lighting and cost-effective facility monitoring in a single platform that helps run operations more efficiently.

“Redwood enables SAP to maximize savings from lighting while providing data around space utilization and temperature mapping that gives us the insight we need to intelligently operate our facilities. Partnering with Redwood has empowered us to carry out strategic facilities planning. I highly recommend them.”

– Larry Morgan, SAP Head of Operations, Palo Alto and Vancouver; President, Silicon Valley IFMA



PIA Award—Architectural SSL:  
Platinum Winner 2011



IES Progress Report 2010:  
Lighting Controls



EDISON AWARDS

Edison: Best New Product  
Award 2010



Bloomberg: Winner—Clean  
Tech and Innovation 2010

**Realcomm**

Realcomm: 2010 “Digie” Award  
for Best Technology in Energy

# CAN YOUR LIGHTING DO THIS?™

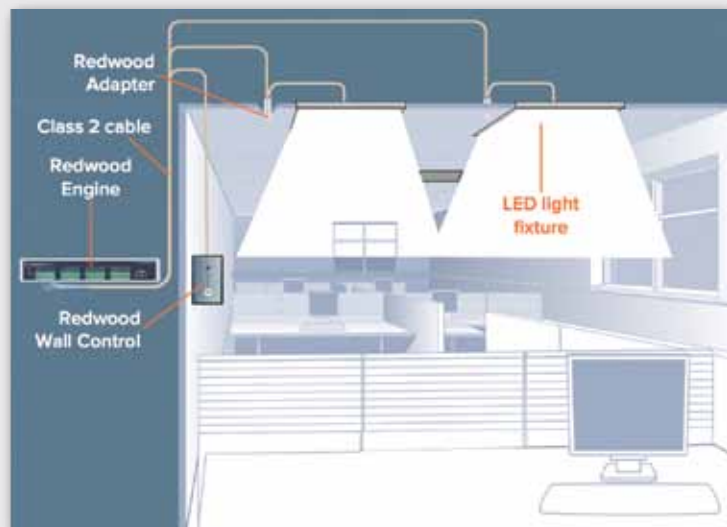
“Redwood has an innovative new approach to controlling and managing a lighting system. Very powerful and extensive control and building information capabilities.”

– *Intelligent Lighting Controls Report, Pike Research, 2011*

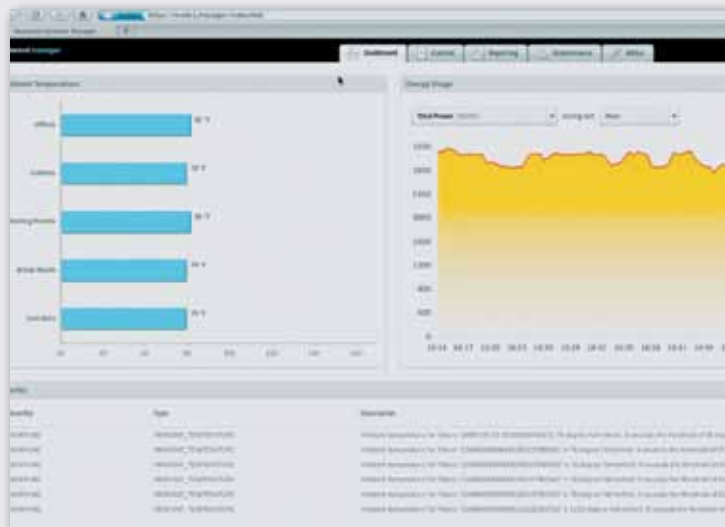
## WHAT DOES REDWOOD DO?

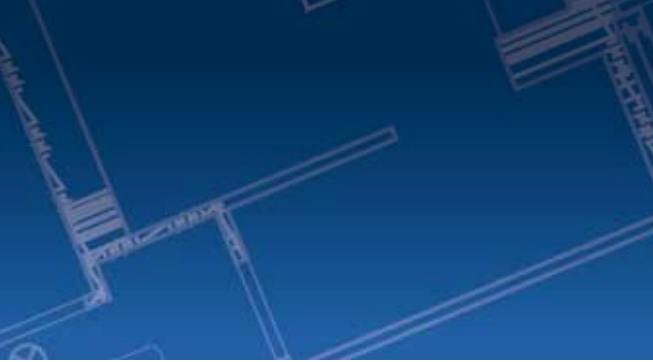
Redwood Systems has developed the world's only commercial lighting control network with an integrated building intelligence platform. This award-winning approach provides proven, best-in-class energy savings and cost-effective facility monitoring. Redwood is relied upon by some of the top companies in the world including Facebook, SAP, Volkswagen, and Google. The high-density network of sensors enables extremely smooth per-fixture dimming, one-button daylight harvesting, and highly accurate activity sensing for occupancy-based lighting policies. The sensors automatically deliver data and alerts that report on how workspaces are utilized,

Redwood's innovative approach to commercial lighting combines power, communications, and control over low-voltage class-2 wire. This enables a simplified and lower-cost installation and turns the lighting system into a scalable, reliable, and flexible platform for building intelligence.



The Redwood Manager enables simple and secure Web access from a PC or smartphone to commission, control, and report on the lighting and sensor network. The dashboard report below shows temperature by building zone, overall power usage, and maintenance alerts through a secure connection.





Facebook data center, Prineville, Oregon

heated, and cooled. This provides building owners, operators, and tenants with the ability to minimize overall building operating costs while enhancing employee and workspace productivity. For engineers and contractors, Redwood drastically reduces the time spent in electrical design, planning, and commissioning and makes LEED and lighting policy verification automatic.

### HOW DOES REDWOOD DO IT?

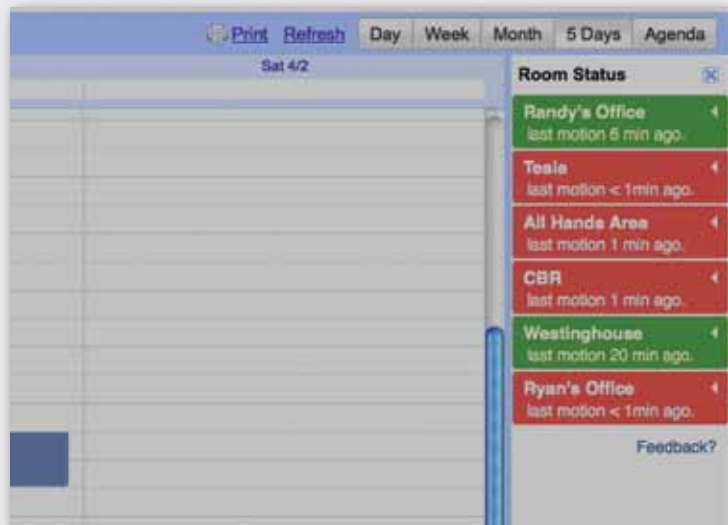
Redwood's patent-pending technology turns lighting into a digital application on the corporate network that can be easily and cost-effectively powered, controlled, and monitored. The **Redwood Engine** is the core of the system and efficiently converts

AC power to DC in one central location. The system then delivers low-voltage DC power and control to light fixtures through class-2 wire, reducing the cost and time of installation. The **Redwood Adapter** contains sensors located next to or in every light fixture. These sensors constantly report on an ever-expanding list of environmental data that includes light levels, temperature, occupancy data, and actual power consumption. The **Redwood Manager** is Web-based software that serves as the control interface to easily commission lights, set lighting policies, activate demand response, enable daylight harvesting, and access reports.

### Key Benefits:

- **Best-in-Class Energy Savings**
- **Real-Time Energy Management and Reporting**
- **Monitored and Enhanced Workspace Productivity**
- **Reduced Installation, Commissioning, and Maintenance Costs**
- **Flexible, Scalable, and Open Platform**

Redwood gives employees access to real-time occupancy information showing whether conference rooms that were booked using calendar systems are actually being used. Facility managers can also see actual room occupancy as input to optimize space utilization.



A network of high-density sensors is embedded in the lighting system. These sensors measure motion and temperature and can provide useful information about building performance.



# UPGRADE TO BUILDING-PERFORMANCE LIGHTING

## LIGHTING CONTROL OPTIONS

		Code-Compliant Controls	Advanced Controls	Building-Performance Lighting
Energy Savings	Full-range dimming	—	●	●
	Tailored occupancy	●	●	●
	One-button daylight harvesting	—	—	●
	Flexible scheduling	●	●	●
	LEED point contribution	●	●	●
	Demand response	—	—	●
	Level of energy savings	●	●	●
Building Intelligence	Space utilization reporting	—	●	●
	Temperature mapping	—	—	●
	Comprehensive power metering	—	●	●
	Real-time data and alerts	—	●	●
Platform Flexibility	Simple setup and operation	●	—	●
	Extensible sensor platform	—	—	●
	Web and mobile device access	—	●	●
	Scalable, reliable, and secure	—	●	●

Redwood delivers a holistic view of the built environment through the lighting system. Lighting can now be used to ensure that heating and cooling of a space occurs only when it's occupied, determine if conference rooms are available, or assess how well space is being utilized overall. Redwood provides customers with insights to intelligently operate their facilities and enhance employee productivity.

## HIGHLIGHTED PROJECTS



**Project:**  
Data center/New construction

**Location:**  
Prineville, Oregon

**Design & Build Team:**  
Alfa Tech (MEP), Rosendin Electric (EC)

**Key Benefits:**  
Delivers proven energy savings and real-time monitoring and alerts; contributes to energy efficiency and indoor environment credits toward project's LEED Gold certification.



**Project:**  
Research facility/Renovation

**Location:**  
Belmont, California

**Design & Build Team:**  
Whitney Polcyn Architects (Design), IDeAs (MEP), New Age Electric (EC)

**Key Benefits:**  
Provides an extensible lighting platform for implementing new advances in LED lighting control, management and measurement; delivers proven energy savings and expanded control interfaces via smartphone.



**Project:**  
Corporate offices/Retrofit

**Location:**  
Palo Alto, California

**Design & Build Team:**  
Lighting Application Sciences (Lighting design), Linc Lighting and Electric (EC)

**Key Benefits:**  
Supports high sustainability goals company-wide; proven energy savings, reduced operational costs and an improved workplace environment.



**Project:**  
Corporate office space/Retrofit

**Location:**  
Mountain View, California

**Design & Build Team:**  
Gensler (Architect), Glumac (MEP), AMS Electric (EC)

**Key Benefits:**  
Delivers energy savings and space utilization data.



### CONTACT US

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