



Digital Building Solutions

Run a Smart Workplace

Introducing the Digital Building

- Maximize efficiency and productivity
- Enhance infrastructure flexibility & network security
- Reduce installation and operating costs
- Optimize environmental controls and capabilities

WESCO Provides Customized Solutions for Your Digital Transformation

When it comes to meeting customer requirements and providing customized solutions for digital infrastructures, WESCO's highly experienced Data Communications, Security, Lighting, and Power Teams are the only resources you need. Our combined expertise makes WESCO ideally suited to recommend the smartest digital building solution every time.



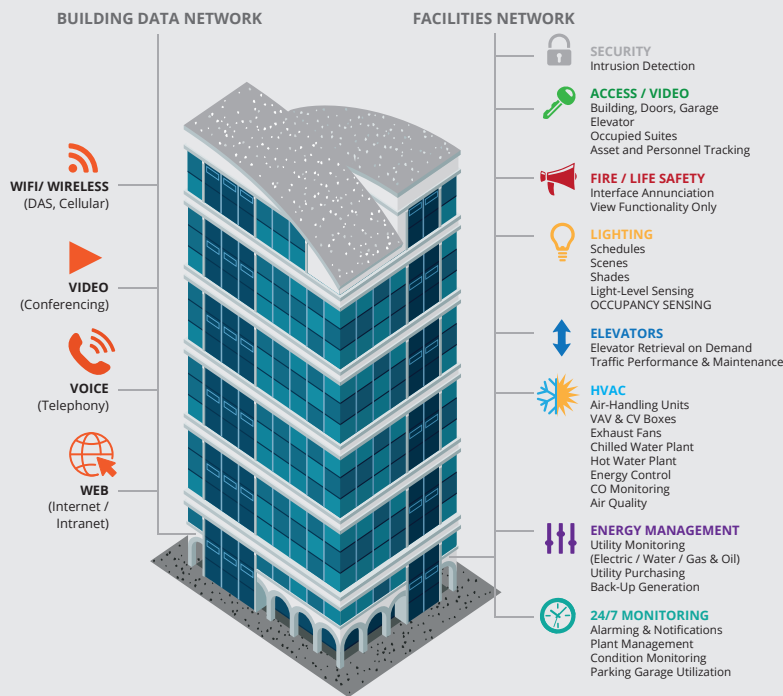
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The Digital Building

As the world rolls forward toward “smarter” Internet of Things (IoT) devices, companies are leading the way with digital building technologies, which combine innovations in IoT devices and sensors with Power over Ethernet (PoE) products. These Digital Buildings combine various disparate building systems—energy, management, safety, security, communications, lighting—into a converged infrastructure that optimizes building systems, operations, and maintenance. The digital building will help you reduce operational costs, improve workplace productivity and optimize space utilization.

WESCO Digital Building and Network Solutions Expertise:

- Dedicated Data Communications, Security, Lighting and Power Solutions Experts
- Network of Trusted Data Communications Contractors, Electrical Contractors, Security Integrators and more
- Lighting, Energy, Security, and Infrastructure Assessments
- Upgrades and Retrofits
- Operational Efficiency Maximization
- Supply Chain Optimization
- Regulation Compliance and Utility Rebates



Why Digital Buildings Are a Smarter Path Forward

Modern building operators are trying to reduce costs, increase efficiency, and simplify operations. To achieve this, you need easier ways to manage all of a building's assets. Today, data is everywhere and IoT will reshape how buildings are managed, how they interact with the occupants, and how they affect the communities that surround them.

Digital Building solutions help maximize the effectiveness of any application by converging the building systems into a single accessible network, integrating a wide range of sensors and controls, and then applying analytics to the data collected to improve performance. Migrating devices to the PoE network will reduce the need to install the typical electrical distribution infrastructure — enabling campus-wide access networks and eliminating the need for a power outlet at every endpoint.

WESCO Digital Building Solutions include:

- Converged data wired/wireless networks
- Lighting devices and controls
- Access control systems
- Video surveillance
- Building automation devices and controls
- HVAC, fire alarm and protection
- Vertical transportation, digital signage, clocks, window shades, etc.

Benefits of a Digital Building Solution

- Reduced Energy and Increased Sustainability
- Optimized Space Utilization
- Increased Productivity, Performance, and Safety
- Simplifies moves, adds and changes
- Improved Employee Engagement and Retention



Empower Your Facility with a High-Density Sensor Network

Data Makes a Building Smarter

One of the keys to a Digital Building solution is a high-density sensor network that provides a comprehensive set of environmental data. Through integration, your sensor network can support smart building policies with a meaningful return on investment.

- Occupancy reports that support smart real estate decisions
- HVAC reduction in unoccupied zones
- Programmable email alerts for lights out, fixture failure, or unexpected motion
- Room occupancy indicators and room scheduling
- Customized environmental reports and energy consumption mapping
- Real-time reporting on building occupancy and location of occupants
- Emergency evacuation pathway lighting

Installation Simplicity

High-density sensors are easy to use and install with simple PoE deployments and an intuitive mobile app for configuration.

Seamless Security

Advanced sensor solutions can provide comprehensive security intelligence, including access control and usage analytics.

Sustainable Savings

Save on energy and operating expenses to meet environmental-protection standards.



Light a Path to Savings

According to the US Department of Energy (DoE), lighting accounts for 30% to 50% of a commercial building's energy use. Standard fluorescent fixtures are limited in controls and intelligence. For building managers looking to reduce energy costs and improve building intelligence, a networked lighting solution is a great place to get started toward a complete Digital Building system.

An Intelligent Lighting Network Solution delivers the energy efficiency of LED lighting, with a sensor network that reports motion and illumination levels. The LED fixtures are powered over a standards-based PoE network using UTP cabling. The sensor data can be used to support smarter facility policies and, through an open API (application programming interface), can put those policies to work for you.



Open API, Open for Innovation

Each fixture in an Intelligent Lighting Network Solution is controlled through a local sensor, managed by web-based applications accessible on or off-site. These applications allow you to set lighting policies based on light levels, time-outs, daylight harvesting, and motion. But that's just that beginning of this solution's capabilities.

The ubiquitous sensor coverage, combined with an open API, enables innovative applications and integrations that can improve space utilization, productivity, temperature, color mapping, and even security.

Digital Building Solutions

Office Space



■ Sensor

■ 2x4 LED Panel Light

■ LED Down Light

■ Recessed Linear LED Luminaire

■ Sensor

■ LED Down Light

■ Wireless Antenna

■ Security Camera

■ Security Motion Detector

■ Climate Control

■ Linear Pendant LED Luminaire with Sensor

■ Fixtures

- Panel Fixtures
- Down Lights
- Pendants
- Wall Scones
- Recessed Linear LED Fixtures
- Wireless Antenna

■ Controls

- PoE Switches
- Sensors
- Wall Dimmers
- Scene-Control Switches
- UTP Cabling
- Patch Cords
- Patch Panels
- Racks
- Wall-Mount Kits
- Climate Control

■ Security

- Security Camera
- Security Motion Detector
- Access Control

■ Power

- UPS for Emergency Backup
- PDUs
- Power Cables



Fixtures — Office lighting is deployed evenly through the office interior, making it the ideal host for a pervasive sensor technology. Wireless antennae are strategically placed to provide optimal WiFi/Cellular signal strength.

Security — Security cameras and motion detectors are distributed to minimize security blind spots. Access control provides additional security to sensitive areas and information.

Sensors — Each sensor detects motion, illumination and temperature.

Dimmers & Climate Control — To override automated controls, occupants can adjust light and temperature for detail work.

Connectivity — Sensors, fixtures and dimmers are powered over UTP cabling for easy installation and greater energy efficiency than traditional sensor and lighting solutions.

PoE Switch — Converts AC power to low-voltage DC power.



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Powering the Digital Building

Turn Down the AC, Power with PoE

Take your building to the next level with a Power over Ethernet (PoE) low-voltage system that reduces energy consumption and increases building intelligence, leveraging the same cabling infrastructure that supports your data network today. Every component of the Digital Building is powered over low-voltage cabling, so you can experience all the benefits of a PoE/low-voltage system.

Benefits of PoE

- Low-voltage PoE infrastructure can eliminate the need for pipe or conduit, resulting in a solution that's easier to install and maintain
- PoE LEDs cut energy and maintenance costs by running cooler and longer than fluorescent
- The Digital Building can extend the energy savings of LED fixtures through configurable controls from daylight harvesting to time-outs and motion activation
- Standards-based, PoE-enabled infrastructure simplifies full-building automation, driving cost savings through a converged network
- Sensor grid network enables collection of granular data, viewable on a sophisticated software platform for valuable analytics

Connecting the Digital Building

Cabling and Connectivity Considerations

The Digital Building connects many networks within a building—including lighting, heating, cooling, and video—to one network platform.

By bringing together the systems, as well as sensors and actuators, on a single platform, the solution improves building efficiency and sustainability and enables building owners to manage and control them more effectively. Building occupants can use the platform to control the lighting, heating, and cooling systems where they reside, whether it's a cubicle or an apartment within the structure.

The cabling for this system must support the power throughput and additional heat generated by delivering power over it. Similarly, connectivity must be robust, durable and provide power headroom for current-carrying capacity.

Your One Source for Digital Building Solutions

As the world becomes even more connected through the Internet of Things (IoT), end users are looking for ways to drive more value from their investments. WESCO leverages our massive suite of WESCO digital building solutions and specialized technical support personnel to provide the latest in next-generation technologies and assist your digital transformation.

WESCO's expertise in data communications, security, lighting, and power enable us to deliver holistic solutions that maximize the productivity and efficiency of your networks, your facility, and your business.







WESCO®

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WESCO International, Inc. (NYSE: WCC), a publicly traded Fortune 500 holding company headquartered in Pittsburgh, Pennsylvania, is a leading provider of data communications, security, electrical, industrial, maintenance, repair and operating (MRO) and original equipment manufacturers (OEM) product, construction materials, and advanced supply chain management and logistic services. 2013 annual sales were approximately \$7.5 billion. The company employs approximately 9,200 people, maintains relationships with over 18,000 suppliers, and serves over 65,000 active customers worldwide. Customers include commercial and industrial businesses, contractors, government agencies, institutions, telecommunications providers, and utilities. WESCO operates nine fully automated Distribution Centers and approximately 475 full-service Branches in North America and international markets, providing a local presence for customers and a global network to serve multi-location businesses and multi-national corporations.