

# FUTURE

K-12 school district is a  
leader in energy efficiency

Davis School District – Utah, USA

EcoStruxure™ for Building solution helps to modernize  
a 100-year-old school with a 21st century Building  
Management system.

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## Overview

Davis School District in Utah is a leader in energy efficiency among K-12 schools. It received the 2013 Excellence in Energy Award in the category of Responsible Energy Development from Utah Governor Gary Herbert. The district works closely with Utah Yamas Controls, a Schneider Electric master-level EcoXpert™ partner, to ensure their facilities are operating at peak energy efficiency.

In 2012, the district celebrated its 100th birthday and started planning for the next 100 years, including integrating many disparate building systems, updating aging facilities, and building new energy efficient schools. The district worked closely with Schneider Electric's BMS Master EcoXpert™ partner Utah Yamas Controls, and chose to transition to EcoStruxure™ Building Operation\*.

"Education is our first priority and to accomplish it we need to provide a good learning environment," said Director of Utilities Services Paul Barnes. "It is very important that we are energy efficient. Every dollar we don't spend on energy is one we can use toward educating our students."

In November of 2012, Utah Yamas Controls completed the transition to EcoStruxure Building Operation\* in all 90+ facilities encompassing over 10 million square feet, including 59 elementary schools, 16 junior high schools, eight high schools and three alternative high schools. Many of the school buildings had TAC I/NET installed, and because EcoStruxure Building Operation\* is engineered to protect existing investments, the transition was mostly software-based and took less than three weeks to complete with little disruption to day-to-day operations.

"Working with Utah Yamas Controls is great," said Doug Anderson, Energy Programmer for Davis School District. "Jarrod Curtis and Kevin Dyreng are smart guys and they have really helped guide us to get to where we need to be in terms of cutting-edge functionality and cost."

EcoStruxure Building Operation\* enables Davis School District to manage, monitor, and control all of their buildings on a single system, including 340 portable classrooms.

Using standard open protocols such as BACnet®, LON®, Modbus®, and Web Services, the district can now provide anytime, anywhere access to end-users, including custodians, principals, and teachers. This is helping save energy in the summer months by enabling year-round employees to remotely turn their air

## Goal

Update aging building management system in 90+ schools and 340 portable classrooms as well as in office and data center space, while improving energy and operational efficiency.

## Story

Large public K-12 school district with 66,000 students needed to create productive learning environments, and increase operational efficiencies across the large district while preserving its existing investment with Schneider Electric.

## Solution

- EcoStruxure Building Operation\* system and Data Center Operation
- Implemented by BMS Master EcoXpert partner, Utah Yamas Controls ([utahyamas.com](http://utahyamas.com))



## Results

- One integrated BMS with updated cutting-edge technology
- The district has also earned an "Excellence in Energy Award" from the state's Governor
- 7% reduction in HVAC energy consumption even when campus grew by 18%
- 10 million f<sup>2</sup> Area of facilities' BMS transitioned in just a few weeks

conditioning on/off via their existing self-service system, where staff already has access to things like payroll. This remote access ensures the system is only running when it needs to rather than cooling unoccupied rooms.

Day-to-day operations and analysis have become significantly easier with new EcoStruxure Building Operation\* features such as drag-and-drop trending, watch windows, calendar-like scheduling, and one-click reporting. If something does fall out of the programmed optimum range, the system requires users to acknowledge the alarm, follow a checklist, and complete cause notes to ensure proper procedures are followed. EcoStruxure Building Operation\* can automatically send email alarms to specific staff who can then access the system via a mobile application to diagnose and even fix the problem remotely for minimum disruption.

EcoStruxure Building Operation\* is also becoming part of the educational experience. An interactive touchscreen in the lobby of newly built Centennial Junior High School in Kaysville, UT, visualizes the amount of energy the building is using in real-time. Teachers can also access this information from their classrooms as a learning tool. This real-time access is featured in all schools, including an elementary school that will be a net-zero ready facility when it is completed in the 2013/2014 school year.

Utah Yamas Control and Schneider Electric are proud to be trusted business partners of the Davis School District. Their focus on energy efficiency and need for cutting-edge functionality made them a perfect candidate for transitioning to EcoStruxure Building Operation\*.

EcoStruxure Building Operation\* solved many of the challenges the district faced, including integrating many disparate systems, updating aging facilities, accessing the latest technology, and being able to analyze data from across their district to ensure continued energy efficiency.

7%  
reduction

In HVAC energy consumption even when campus grew by 18%

10  
million f<sup>2</sup>

Area of facilities' BMS transitioned in just a few weeks

“The transition has been very easy. I haven't had any heartache. To bring 10 million square feet into one system in a matter of weeks was incredible to me.”

— Doug Anderson  
Davis School District  
Energy Programmer



Schneider Electric's EcoXpert Partner Program unites the world's leading technology providers, who exhibit best-in-class system integration competencies in facility optimization, reliable infrastructures and energy management, with its customers around the globe. Stronger together, this partnership cultivates collaboration, connects expertise, and delivers best-in-class services and solutions.

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EcoStruxure™ Building  
Innovation At Every Level



# EcoStruxure™

## Innovation At Every Level

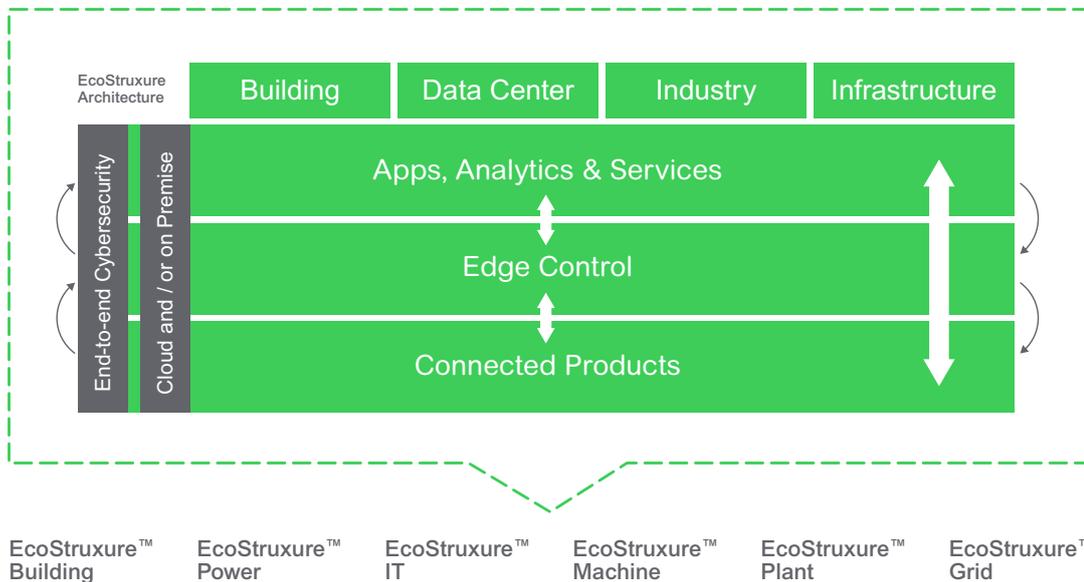
### IoT-enabled solutions that drive operational and energy efficiency

EcoStruxure is Schneider Electric’s open, interoperable, IoT-enabled system architecture and platform.

EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers.

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure™ has been deployed in 480,000+ sites, with the support of 20,000+ system integrators and developers, connecting over 1.6 million assets under management through 40+ digital services.

### One EcoStruxure architecture, serving 4 End Markets with 6 Domains of Expertise



### Connected Products

The Internet of Things starts with the best things. Our IoT-enabled best-in-class connected products include breakers, drives, UPSs, relays, sensors, and more. Devices with embedded intelligence drive better decision-making throughout operations.

### Edge Control

Mission-critical scenarios can be unpredictable, so control of devices at the edge of the IoT network is a must. This essential capability provides real-time solutions that enable local control at the edge, protecting safety and uptime.

### Apps, Analytics & Services

Interoperability is imperative to supporting the diverse hardware and systems in building, data center, industry, and grid environments. EcoStruxure enables a breadth of agnostic Applications, Analytics, & Services for seamless enterprise integration.

Find out more about EcoStruxure

[schneider-electric.com/ecostruxure](https://schneider-electric.com/ecostruxure)

# Learn More



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Discover EcoStruxure™ Building



Discover Efficient & Connected Buildings



Contact us to start your journey



A sustainable space for 1500 species



EcoStruxure™ Energy Expert increases electrical and mechanical efficiency for Lake Land College

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\*Formerly known as SmartStruxure Solution

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