

Simplify complexity through digitization and the broadest hotel technology offer in the market

March 2020 Version 2



Life Is On

Schneider 

Electric

# **EcoStruxure**

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. We leverage technologies in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level. This includes Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure has been deployed in 450,000+ installations with the support of 9,000 system integrators, connecting over 1 billion devices.



#### **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. Schneider Electric offers you the world's leading connected control systems that enable simple design, commissioning, and monitoring so there is less complexity for you to manage. This is our integrated suite of software applications, designed specifically to help hotels maximize efficiency and business performance from the guest room to the mechanical room.

## 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.



# EcoStruxure for Hotels

Hotels are highly complex, energy-intensive environments. Multiple, divergent systems don't share information. Maintenance is difficult and often reactive. Hotels need to leverage technology to achieve operational excellence, drive down energy consumption, and ensure the highest levels of guest satisfaction

Schneider Electric provides hotels with the most comprehensive hotel technology offer on the market including building, guest room, security, power, energy, IT, and sustainability management, along with cloud-based services and analytics. We offer pre-engineered solutions through a single, IoT-based, open-protocol platform—EcoStruxure™ for Hotels—that enables the integration of 3rd party systems and devices for easy installation and operational efficiency. Our integrated architecture simplifies complexity by leveraging digitization to integrate all assets, systems, devices, and services for monitoring, analysis, and control to help you improve financial performance and operational efficiency, reduce carbon emissions and energy costs, and reinvest savings into the guest experience.

# Apps, Analytics & Services



#### EcoStruxure™ Building Advisor

EcoStruxure Building Advisor's comprehensive service portfolio combines people, technology, and collaboration to help hotels improve financial performance and quest satisfaction. Building Advisor enables your chief engineer to reduce operating costs, enhance the guest experience, and improve asset value of your buildings. Utilizing a sophisticated analytics platform, we can monitor, diagnose, and mitigate any issues in the Building Systems without the need for any additional hardware. Hotels can benefit from:

- Field-service engineers and data scientists who provide support and troubleshoot problems onsite and remotely
- Real-time system alarm monitoring and continuous building-performance monitoring to anticipate issues
- · Automated fault detection and diagnostics to speed resolution
- The ability to Identify and prioritize maintenance work with ROI justification
- Customized, detailed reports, deep insights on building systems, and expert advice with solutions



#### EcoStruxure™ Power Advisor

Power Advisor raises metering diagnostics from device-based troubleshooting to full system analysis, validating data quality, and identifying gaps or issues in your power management and power quality systems. Power Advisor is a unique, affordable, and fast-to-deploy service leveraging analytics to identify potential site issues, which lead to corrective actions that improve system health and electrical network performance of your hotel. Power Advisor enables your chief engineer to improve power reliability and operational efficiency with automated and expert recommendations.

- Reduce downtime by identifying high-risk electrical network issues
- · Improve data integrity
- · Identify power quality issues



#### EcoStruxure™ Resource Advisor

Resource Advisor is a unique enterprise, cloud-based software platform that enables your energy & sustainability manager to simultaneously operate your energy supply, sustainability, and energy efficiency data. Resource Advisor collects and combines procurement, usage, and sustainability information from interval meters, utility data, software, invoices, and more.

- · Collect, aggregate, verify, and analyze energy and sustainability data
- Optimize energy supply with procurement and budgeting best practices
- · Reduce emissions and track energy, carbon, water, and waste
- Reduce energy consumption with operational and behavioral change



#### EcoStruxure™ Facility Advisor

EcoStruxure Facility Advisor is a suite of cloud-based software and services providing deep analytics and expert advice to optimize the energy performance in individual buildings or multi-site portfolios. Facility Advisor enables your energy & sustainability manager in small- to medium-sized hotels to improve energy efficiency and building performance while ensuring business continuity and customer comfort.

- · Collect, aggregate, and analyze energy consumption data
- Monitor and aggregate energy production data
- Benchmark all your sites and multi-site cost allocation
- Leverage Schneider Electric expert support, data-driven recommendations, and action plans
- Detect abnormal consumption through analytics, get early alerts, and identify equipment inefficiencies or root-causes before extra expenses are incurred



#### EcoStruxure™ Asset Advisor for Electrical Distribution

Asset Advisor is a suite of cloud-based services to address issues inside your electrical distribution equipment and mitigate the risk of electrical failure in the hotel. Our end-to-end services enable you to move from reactive to proactive maintenance. Asset Advisor enables your chief engineer to perform predictive and proactive maintenance of your electrical distribution to reduce unplanned downtime.

- · Optimize day-to-day operations thanks to smart alarming
- Mitigate risks with early identification of risk issues
- Plan maintenance based on equipment condition



# **Edge Control**



#### **EcoStruxure**™ Building Operation

Building Operation is a user-friendly building management software for optimized building performance. Built upon open standards and end-to-end cybersecurity, it integrates and facilitates data exchange from the Connected Room Solution, Guest Room Expert, property management system, and door lock system to improve staff productivity, reduce guest complaints, and enable superior operational efficiency and guest room functionality.



#### **EcoStruxure™ Guest Room Expert**

Guest Room Expert is Schneider Electric's guest room management software. It receives data from the building management system, property management system, and Connected Room Solution providing centralized visibility and control to both individual guest rooms and the entire network of rooms.



#### **EcoStruxure**™ Security Expert

Protect building occupants and assets with EcoStruxure Security Expert, an integrated role-based, physical-access control and intrusion detection solution that unifies a building's security infrastructure and management systems into an easy-to-manage, single platform that enables faster, more efficient, and potentially life-saving decision making.

Available for small, mid, and large enterprise environments, this solution provides extensive data-handling capabilities that can store millions of credentials in off-line memory while functioning independently and maintaining a unique database. Information is encrypted throughout the architecture and complies with global agency listings. It easily extends to multiple sites and future business expansions.



#### **EcoStruxure**™ **Power Monitoring Expert**

Power Monitoring Expert (PME) is the window to your digitized power network. Power Monitoring Expert leverages IoT connectivity and distributed intelligence, so as your power grid becomes more dynamic and regulations more challenging, PME makes it simpler to protect people and assets, keep operations running, and save time and money.



#### EcoStruxure<sup>™</sup> Facility Expert

To ensure that business is always up and running and store managers can focus on customers rather than equipment incidents, retailers must provide facility managers with the tools they need to maximize uptime, ensure comfort in stores, and efficiently manage maintenance issues and equipment failure. EcoStruxure Facility Expert helps retailers manage facilities more efficiently through IoT-based software that delivers best-in-class refrigeration, HVAC, and energy control in individual facilities or across your entire portfolio of buildings. Real-time collaborative technology and automated alarming connects you instantly to buildings and equipment, making operations more reliable, efficient, and cost-effective.



#### SmartX Edge Servers

SmartX Edge Servers (AS-P and AS-B) are automation servers for use in any application. SmartX Edge Servers feature dual Ethernet ports to elevate BACnet field bus communication to the IP level to modernize existing building management systems while keeping in place existing field buses and devices. With superior performance, it simplifies system integration and transition, and is preferred for large, complex enterprise applications.

## **Connected Products**



#### **Hotel Room Controller**

The Hotel Room Controller (HRC) controls connected guest room devices and aggregates and shares room data with property, building, and guest room management systems. The HRC enables full temperature, lighting, and curtain control, along with room scenes (Welcome, Restore, Maid, etc.), courtesy requests, and bedside panel integration for an enhanced guest experience and advanced energy efficiency in full-service and luxury hotels. Combined with the SE8000 Room Controller and EcoStruxure™ Guest Room Expert, our guest room management system, this solution provides occupancy-based energy management and integrates with third-party hotel systems and devices, such as housekeeping systems, door lock, curtain motors, mirror and underfloor heating, instant hot water devices, and more.



#### SE8000 Series Room Controllers

The SE8000 provides occupancy-based HVAC control in guest rooms, common areas, and back-of-the-house rooms. It determines occupancy and other room parameters from various sensors to reduce energy consumption during unoccupied periods. In the guest room, integration with the property management system enables the hotel operator to:

- Send welcome messages on arrival
- Set guests' preferred language, temperature, etc.
- · Send targeted commercial messages to rooms



#### **Glass Touch Panels**

Our Glass Touch Panels enable guests to control room temperature, lighting, curtains, services, and more for a best-in-class guest experience. These guest room control devices are highly customizable to reflect each hotel's unique visual aesthetic. Enhance the guest experience with improved comfort and aesthetic appeal, while easily designing and scaling guest-facing room devices to meet brand standards.







#### **Push-button Wiring Devices**

D-Life Multitouch Pro and KNX Pushbutton Pro user interfaces are the perfect addition to a modern KNX installation. Features include a fully developed design with a new user interface that is similar to the intuitive and convenient operation of a smartphone or tablet and an entire array of functions that are found with conventional multi-function push-buttons. Schneider Electric now delivers the perfect combination of convenience and design.





#### **Conventional Wiring Devices**

Schneider Electric's wiring devices ranges offers multiple functionalities with different appearances to adapt to any decoration. Unique, patented technology and exquisite manufacturing ensure comfortable operation and easy maintenance. Wiring devices are adapted to regional specifications and trends: New Unica range for Europe and AvatarON for Asia.



#### SmartX IP Controllers - RP Series

This modular BACnet/IP controller, the foundation of our Connected Room Solution, is capable of controlling multiple applications, including HVAC, lighting, and blinds, putting control into the hands of building occupants. It also integrates easily with IoT devices, a requirement in today's connected world, while future-proofing your investment with an infrastructure that will grow with you and adapt to building tenants' changing needs.



#### SmartX IP Controllers - MP Series

Next-generation IP field controllers (MP Series) extend the reach of the EcoStruxure™ Building open-innovation platform with seamless scalability and flexible topologies that deliver unprecedented performance. Features and benefits include:

- Enable data transmission from connected equipment
- Diagnose and resolve issues faster
- · Commission with mobile phones for added convenience
- · Enjoy utmost peace of mind with market-leading cybersecurity



#### **SmartX Living Space Sensors**

SmartX Living Space Sensors are a family of living space sensors for air quality and comfort needs compatible with SmartX IP Controllers and the EcoStruxure Building Operation user interface. These sensors use an RJ-45 sensor bus that provides communication and power from the SmartX IP Controller. A Bluetooth® adapter is available for commissioning and service. SmartX Living Space Sensors are modular and are ordered in two parts — the sensor base and the cover — for quick setup and configuration.



#### eCommission SmartX Controller Mobile App

Drive project speed, quality, and repeatability with the eCommission SmartX Controller Mobile App mobile app. This powerful and portable mobile app offers role-based features and functions that reduce time and costs associated with installing, setup, and commissioning new SmartX IP Controllers.

The mobile app is a free download and runs on any device. Technicians, electricians, and commissioning agents get simplified, role-based workflows that assist them at each step of the process. Get a head start on projects and use the app to accelerate pre-commissioning even before the entire network infrastructure is in place.



#### SmartX Valves & Actuators

The SmartX VBB/VBS series of ball valves and actuators are a revolutionary line of products that can help improve building performance. Designed with intelligence, efficiency, and a high degree of interchangeability, these valves and actuators are simple to operate and offer some exclusive industry firsts.



#### EcoStruxure Security Expert – Security Purpose Controllers (SP-C)

This is the central processing unit of the Security Expert system. It communicates with all system modules, stores all configuration and transaction information, processes all system communication, and reports alarms and system activity to a monitoring station or remote computer.



#### Actassi iFlex Network Connectivity

Actassi Flex and iFlex cable management solutions are an integral part of the EcoStruxure™
Building solution at the Connected Products level. Actassi iFlex delivers a high-performance
solution that solves cabling network management challenges with one architecture that empowers
users with optimal efficiencies and performance that delivers unprecedented business value.



#### Main Power Distribution

From medium-voltage switchgear and transformers, to low-voltage load centers and distribution boards, to energy automation, we deliver tested and validated solutions for hotels, covering all power distribution needs for energy management.



#### **Power Metering**

From basic energy to advanced power-quality metering and analysis, our intelligent meters maximize your power infrastructure with highly accurate, easy-to-read data that helps identify energy savings, increase operational efficiency, and reduce energy costs. We offer Basic Metering (PowerLogic PM3000 and PM5000 series), Intermediate Metering (PowerLogic PM8000 series), and Advanced Power Quality Metering (PowerLogic ION9000 series).





#### **Energy Servers and Gateways**

Simple, cost-effective Ethernet gateways, energy servers, and data loggers enable comprehensive views of energy consumption within the facility or via cloud-based services. Collect energy data throughout your hotel from power meters, smart panels, gas, thermal energy, air or water metering devices, as well as temperature and environmental sensors. Examples include Enerlin'X Com'X, and Link150.



#### **Power Quality and Power Factor Correction**

Efficient, clean power helps ensure a seamlessly functioning power network. Our power quality and power factor correction solutions remove harmonic anomalies and power factor from the power supply, reducing electricity bills, power factor penalties, power losses, and process-related voltage fluctuations. They also mitigate harmonics to avoid voltage and current distortion. Examples include AccuSine active power quality solutions (PCS+, PCSn, PFV+), and VarSet LV power factor correction capacitor banks.



#### **Power Availability**

Enjoy greater efficiency as well as fewer process interruptions, less wear and damage to equipment, and improved safety conditions for your operations staff. Our systems and solutions help protect your power availability in commercial buildings and hotels to ensure business continuity and guest satisfaction. Examples include MasterPact MTZ, PowerTag, Smart Panels, SM6 connected, Easergy P3, and Trihal connected.



#### **Power Protection**

Our low-voltage contactors, relays, and surge protectors guard against equipment failure and danger created by voltage faults, excessive loads, or overcurrent conditions. They enhance safety for guests, staff, and equipment, and are tested and validated to ensure continuous performance. Examples include Acti9 and ComPact NSX.



#### Exiway DiCube - Emergency Lighting

The Exiway DiCube System is an advanced, addressable system for automatic testing, reporting, and supervision of your emergency lighting installation that enables you to comply with compulsory hotel safety regulations for the entire lifecycle of the system. Remote and local monitoring and control, together with automated testing of luminaires, customized reports, and alarm notifications, help hotel operators streamline tasks, improve operational efficiency, and keep the system properly maintained and compliant. The system has the scalability and flexibility to meet the needs of any size hotel, and allows for easy and virtually unlimited expansion, with no changes to your existing DiCube emergency lighting system.

Because the Exiway DiCube System integrates with EcoStruxure Building Operation, Schneider Electric is the first company in the world to offer an end-to-end BMS-integrated emergency lighting system.

Currently not available in Germany, APAC, EAJ, Greater India, NAM



#### Exiway Power Control - Emergency Lighting

Exiway Power Control is the emergency central power supply system from Schneider Electric. In case of a power failure, all connected escape route and exit sign luminaries are supplied with power from a central location. The central processing unit is at the heart of every system and enables configuration, control, monitoring and maintenance of the system to enable compliance with compulsory safety regulations in hotels.

If the system is integrated into the building network, these functions can be easily and conveniently remotely controlled from any PC via the Web-interface or via EcoStruxure Building Operation.

Every system has a modular construction and is comprised of various components: escape route and exit sign luminaries suited for aesthetic-driven environment like hotels, battery systems, and modules for monitoring and controlling of specific functions.

Currently not available in France, Germany, Austria, APAC, EAJ, Greater India, NAM



#### EcoStruxure™ Micro Data Center

A micro data center is a secure, self-contained enclosure with the capability for all essential IT components, often employing converged or hyperconverged infrastructure, along with management and monitoring software devices. It also contains all required supporting racks, UPSs, power, and cooling.



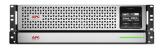
#### **NetShelter Racks & Enclosures**

Open and enclosed server rack and network rack solutions for a variety of environments including data centers, server rooms, network closets, offices, industrial and specialty applications.



#### EcoStruxure™ Modular Data Center

Modular data centers significantly simplify design and construction, offering an alternative solution to overcome the traditional challenges of data center builds such as allocation of space, deployment in industrial environments, or the ability to scale capacity quickly.



#### Smart-UPS

APC Smart-UPS™ is trusted throughout the world to protect equipment and critical data from costly interruptions. A wide, diverse range of products are available globally including N+1 modular offers. New innovations within the portfolio include the integration of Li-ion battery technology and cloud-based remote monitoring, providing significant cost savings and improved lifecycle management options for customers.



# Learn More





Discover EcoStruxure™ for Hotels





Discover EcoStruxure™ Power





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March 2020



