Eco**St**ruxure™
Innovation At Every Level

CONNECTED

Powered for
Peace of Mind

Grand Medica – Novokuznetsk, Siberia, Russian Federation

How Grand Medica's connected facility
gains efficiencies from EcoStruxure™ for
Healthcare and an EcoXpert™ partnership.

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EcoStruxure for Healthcare offers Connected Products, Edge Control, and Apps, Analytics, and Services from three domains of expertise within Schneider Electric's IoT-enabled EcoStruxure architecture: Power, Building, and IT. Together, these innovations help hospitals thrive at every level — from the emergency room to the executive suite.

Connected to quality care

Building a state-of-the-art healthcare facility is no easy task. Creating one inside a building that was never meant to be a hospital in the first place? That's even harder. But that's where the story started for Grand Medica, in Novokuznetsk, Siberia, Russian Federation. Providing every patient with the highest quality medical care required the development of a fully connected facility.

Grand Medica at a glance:
- Multi-profile medical center
- Treats up to 160,000 patients per year
- Health clinic
- 10 operating rooms
- Specialty operating room
- Overnight stay area
- Laboratory

Grand Medica, however, did not start its life as a hospital. Rather, the facility was created within an existing building. The project had a tight, 20-month deadline, and the building presented some challenging spatial issues. The design and construction teams knew they wanted an effective, integrated system — one that covered all the needs of a healthcare facility and would prove flexible enough to support future upgrades and modernization. They found everything they needed in EcoStruxure for Healthcare.

Goal

Bring a connected and integrated solution to Grand Medica for efficiency, visibility, and the capability for easy future upgrades — enhancing hospital performance and patient satisfaction.

Story

Grand Medica prioritized reliable power and technology that would be flexible and scalable as the facility grew. With limited space and time, the team worked closely with Schneider to create an integrated solution to provide measurable efficiency and growth-ready capabilities.

Solution

A connected, IoT-enabled digital hospital architecture offers visibility into all engineering functions. Implemented by an EcoXpert partner, this helps improve energy management and productivity through real-time remote management.

Results

- Reduced electrical operational costs by 20%
- Reduced thermal-energy consumption by nearly a third
- Optimized electrical distribution system for future upgrades
- $176,000 in CapEx savings due to product compatibility

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"When we were choosing our electric and power supply equipment vendor, we talked with all the industry leaders in Russia," said Chief Engineer Andrey Sergeev. "Schneider Electric offered us the best and most comprehensive terms for delivery, installation, and project management. Cost was certainly a criterion, but we also chose Schneider because of their attitude toward us as a customer, and their focus on customer services."

Together with Schneider Electric, the team implemented Building Information Modeling (BIM) beginning at the design stage. This helped inform and streamline all aspects of the project.

"We are the only organization in Russia to use BIM at all stages of the building's life cycle," Sergeev said. "It provided us with objective information about capital construction costs as well as future operational costs."

"EcoStruxure was a very important component in creating Grand Medica's BIM model," said Aleksandr Sutyagin, CEO of Comfort Laboratory, a long-time Schneider Electric certified EcoXpert partner in building management systems and light and room control automation. "This is a revolutionary technology that's going to change the entire construction process in the future."

Partnering for success

Schneider Electric acted as Grand Medica's partner from the design phase to completion and implementation of their chosen solution.

"Schneider participated practically at all stages of our project life cycle," said Sergeev. "With them, we were able to optimize not just our labor costs, but also the next stage of operations. Schneider Electric's expertise helped us meet all our needs."

As a certified EcoXpert partner in building management systems and light and room control solutions, Comfort Laboratory was called in as the system integrator on the project. "With the EcoStruxure architecture, the Grand Medica team can see the whole system," Sutyagin explained. "It's not broken into parts. They have a single platform that

covers all the systems that EcoStruxure touches."

With its EcoStruxure for Healthcare solutions in place, Grand Medica realized:

• Complete engineering systems management
• Remote system access with real-time control
• 20% reduction in electrical operating costs
• One-third reduction in thermal energy consumption

The hospital staff sees the benefit of the new system in the way it improves the level of care. Chief Physician Georgy Zoloev said, "This is a high-tech medical center. We have the medical technologies and equipment to perform cardiovascular surgery, oncology, laparoscopic operations, and more. The stability of the hospital's essential services, its uninterrupted power supply — these things are extremely important for our work."

Designed for care

Grigory Lyashchenko, Schneider Electric's Commercial Director of the Department of EcoBuilding, pointed out that as a facility-wide solution, EcoStruxure for Healthcare does more than just keep the power on at Grand Medica. The platform's focus helps oversee:

• Patient safety and satisfaction
• Operational efficiency
• Total facility security

In doing so, it covers and enhances a wide range of the hospital's vital areas, including:

• Uninterruptible power supply systems
• Climate management
• Safety management
• Fire protection

"Schneider Electric offered us the most comprehensive terms for delivery, installation, and project management."

— *Andrey Sergeev,*
Chief Engineer,
Grand Medica

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Electric

- Lighting
- Electrical power equipment
- Low-voltage systems
- Access control

And, it's important to note, the partnership did not end after facility construction was completed.

"Even now, the company continues to work with us," Sergeev said. "Together, we're keeping a finger on the pulse of modern technology."

Providing peace of mind

According to Sergeev, EcoStruxure allows Grand Medica to manage all its engineering and facility systems quickly, safely, and with complete, connected visibility. That, in turn, translates into a quality experience for patients and staff.

"The life and health of our patients are directly related to the quality of our engineering systems," he said.

"Having EcoStruxure behind us gives us peace of mind, and a feeling of security. Our patients don't see our engineering systems, and they don't have to — there are no questions about the safety of the hospital. We can give them a sense of care and security not just when they're being treated, but also whenever they are here, and for whatever reason. That's one of the genuine and important benefits of EcoStruxure."

EcoXpert Partner Program

Schneider Electric's EcoXpert Partner Program pairs the world's leading technology providers with customers around the globe to cultivate collaboration, connect expertise, and deliver best-in-class services and solutions. Learn more at schneider-electric.com/ecoxpert.

EcoStruxure for Healthcare
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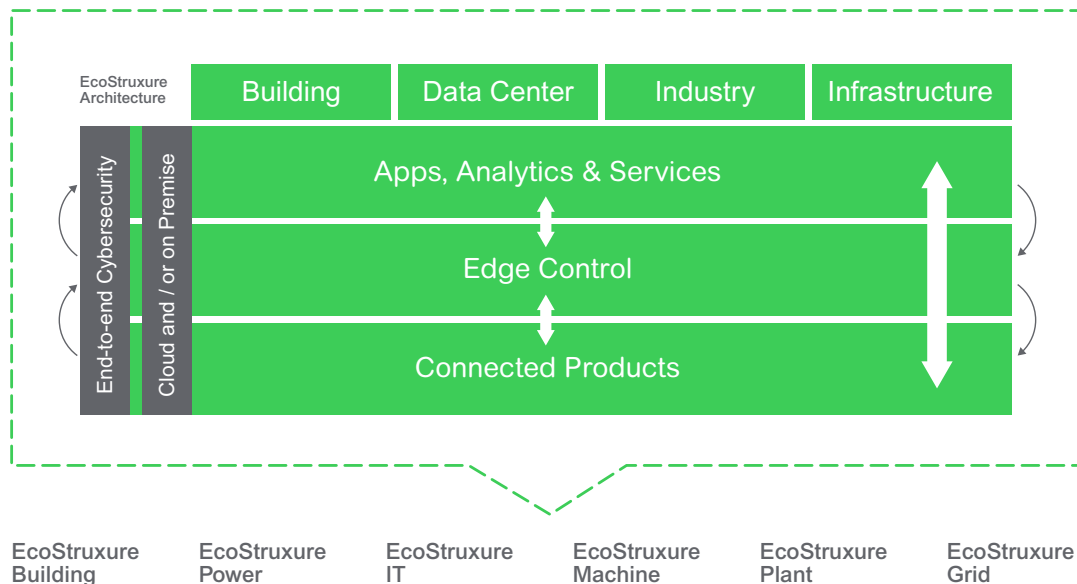## Innovation At Every Level

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

EcoStruxure Architecture	Building	Data Center	Industry	Infrastructure

End-to-end Cybersecurity	Cloud and / or on Premise	Apps, Analytics & Services
		Edge Control
		Connected Products

EcoStruxure Building   EcoStruxure Power   EcoStruxure IT   EcoStruxure Machine   EcoStruxure Plant   EcoStruxure Grid

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 for Healthcare:

schneider-electric.com/healthcare

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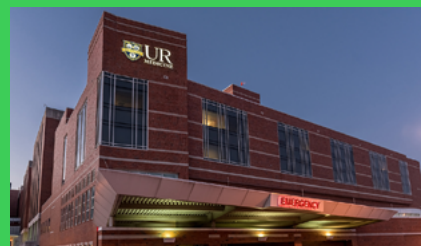
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