

AGILE

Basilica de la Sagrada Familia, Barcelona

State-of-the-art mobile data center meets performance goals and project timelines for historic site.

Sagrada Familia – a UNESCO world heritage site and Catholic church in Barcelona – continues a long history of transformation through an extensive, ongoing construction project due for completion in 2026.

The Basilica had unique challenges and time constraints for building a new data center that required a different approach to the design and construction principles traditionally employed in the IT industry.

In just 16 weeks, Schneider Electric designed, manufactured and delivered a turn-key data center infrastructure solution, complete with IT, racks, UPS, power distribution, precision cooling, environmental management and fire suppression system.

Schneider Electric enabled Sagrada Familia to acquire a new fast track, state-of-the-art data center within budget, with predictable performance, and with the flexibility to relocate the data center when expansion demands a move.

Customer challenges

- Expanding data center requiring more space
- Aging equipment and systems need replacing
- Accommodating ongoing construction by relocating data center prior to 2026
- Minimizing system latency for admissions, transactions, and video surveillance
- Meeting critical project timelines

The solution

- New data center built off site and implemented with no disruption of business operations
- State-of-the-art data center accommodates Sagrada Familia's future growth
- Data center compliant with Sagrada's security standards and performance requirements
- Mobile structure can be moved to a different location as construction demands dictate

The challenge

Sagrada Familia had been running their IT service in a server room with inadequate space for expansion. To accommodate the need for increased digitization of their business processes and more security, Sagrada Familia was compelled to expand.

Since Sagrada Familia is not only an active church but also a busy tourist attraction, the new data center was required to manage ticketing admissions, retail operations, video surveillance, and ongoing engineering design and construction for the next phases of the building project. Moving the data center offsite was not an option due to concerns with latency and security; but building a data center within an active construction site introduced the additional risk of downtime which would impact business processes.

Goal

The need to expand the data center with more space, replace aging equipment and systems and upgrade internal security standards, while at the same time meet critical project timelines

Story

To accommodate the need for increased space, digitization and more security for their data center, Basilica de la Sagrada Familia, was compelled to expand

Solution

- Two 25' prefabricated SmartShelter IT modules
- 10 NetShelter IT racks and rack PDUs at 4kW/rack upgradable to 8kW
- Overhead DX fan coil cooling with external condenser units
- Symmetra PX UPS
- Overhead cable management
- Fire-rated, insulated wall construction
- Fire detection and suppression system
- Cold and Hot Aisles isolated through built-in containment system
- On-site electrical and mechanical connections

Results

- New state-of-the-art data center built off site and implemented with no disruption of business operations
- Accommodates Sagrada Familia's future growth
- Data center built in compliance with Sagrada's security standards and performance requirements
- And because the data center is mobile, it can be moved to a different location as construction demands dictate

In addition to the expanded data center requirements, there was the need to relocate the data center by 2026 to accommodate different phases of construction. A “movable” data center would reduce construction costs by eliminating the need to build two different sites.

Sagrada Familia’s internal team worked to find a solution to meet these unique requirements and plan for future demand. Unfortunately, time constraints were becoming a barrier as meeting all of the proposed requirements were becoming more difficult and costly.



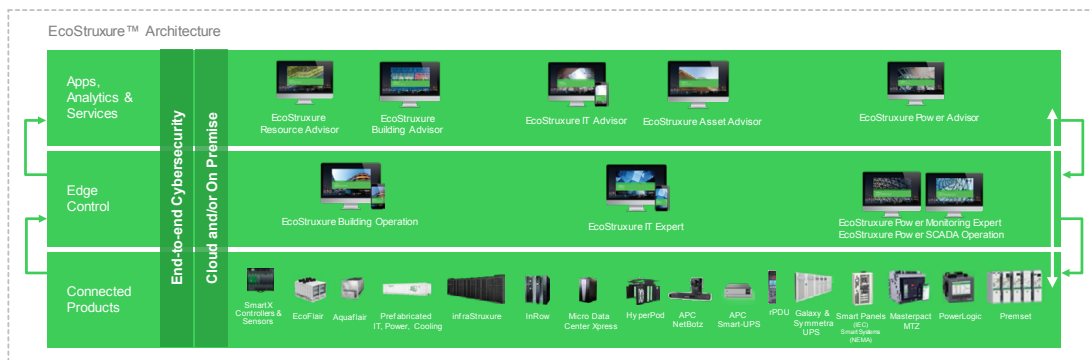
The answer

The Sagrada Familia staff worked directly with Schneider’s design team on a complete data center solution designed to meet their efficiency, mobility, and capacity requirements. Schneider Electric designed and manufactured a turn-key, prefabricated data center solution that was built and tested in the factory and delivered to meet Sagrada’s timeline. The data center solution was transported as two separate prefabricated modules with racks, containment, power, cooling, security and management systems pre-installed and then ganged together on-site to create a functional and spacious room. The units were delivered and installed outside of peak times to minimize visitor and congregation disruption.

Solution details

- Two 25’ prefabricated SmartShelter IT modules, joined together to comprise one individual data center room
- 10 NetShelter IT racks and rack PDUs at 4kW/rack upgradable to 8kW
- Overhead DX fan coil cooling with external condenser units
- Symmetra PX UPS
- Overhead cable management
- Fire-rated, insulated wall construction
- Fire detection and suppression system
- Cold and Hot Aisles isolated through built-in containment system
- On-site electrical and mechanical connections were completed and operational in under 2 weeks.

EcoStruxure™ Innovation At Every Level for Data Center



EcoStruxure™

Innovation At Every Level

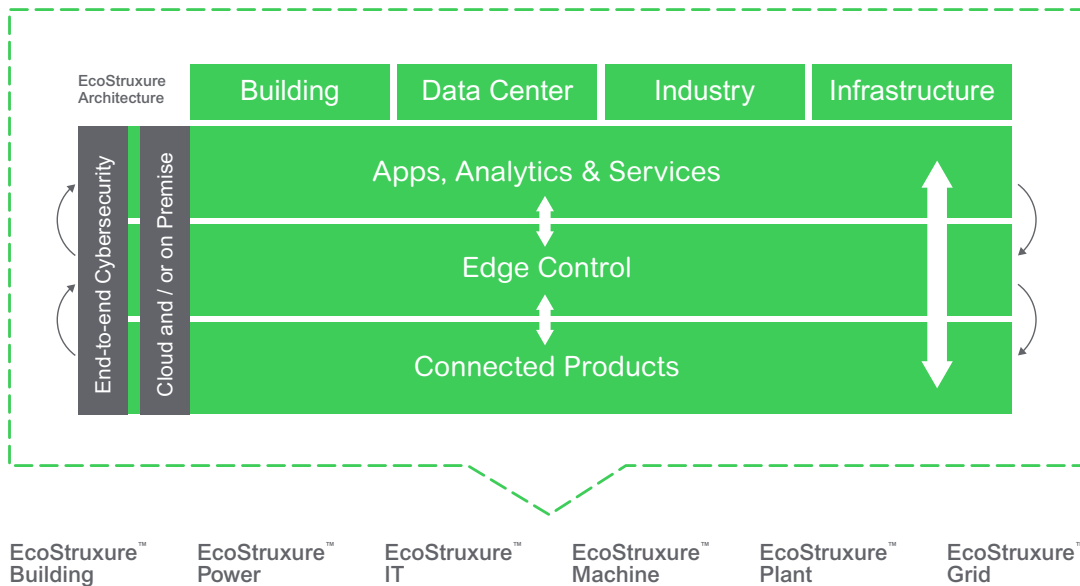
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