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Microsoft Partner



CU Boulder spearheads efficient energy usage and reporting

Colorado University (CU) needed real-time visibility into the availability and performance of 186 energy meters. It also wanted to centralize its view of energy management to improve the security, reliability, availability, and end user experiences of the more than 40,000 students and employees on the campus.

CU implemented TwinWorX®—a Microsoft Azure Digital Twins solution—from e-Magic to model the energy meters and integrate them into a single pane of glass view. As a result, CU realized immediate cost savings on IT operational, labor, and overhead expenses in the management of its energy reporting.



University of Colorado
Boulder

AT A GLANCE

Customer: University of
Colorado Boulder

Website:
<https://www.colorado.edu>

Customer Size: Corporate
(10,000+ employees)

Country: United States

Industry: Education - Higher
Education

Products and Services:
Microsoft Azure

e-Magic Inc., University of Colorado Boulder, & Microsoft Azure Digital Twins

Customer Challenges

CU wanted to implement a scalable cloud-based solution to manage near real-time utility interval data to increase security, resiliency, and availability—and improve the end user experience—at a lower cost than its current onsite platforms.

The university's existing systems faced several challenges, including on-premises systems that required costly network infrastructure resources; expensive software licensing; lack of visibility into real-time meter status and information; and no insights into usage patterns and performance optimization.

Partner Solution

TwinWorX® solution provides real-time and historical data for visualization, alarming, trending, reporting, analytics, and optimization—all via a single pane of glass view. Telemetry data from meters connected via Azure IoT Hub is integrated and normalized into a single Azure Database for PostgreSQL. Via Azure Stream Analytics and Power BI, CU can easily access actionable meter insights. And thanks to the solution being built on the reliable and secure foundation of Azure cloud services, CU is building a foundation for the campus' future.

Customer Benefits

CU's OIT team has been able to eliminate redundant hardware and software and reduce associated expenses by 25 percent. Team members can now view real-time insights and reporting on energy usage, as well as consumption and demand for chilled water, steam, electricity, and water across the campus. "e-Magic's team has been tremendous in supporting our objective of providing excellent service with clear, concise technical expertise, which has resulted in beneficial financial and operational outcomes." —Bryan Birosak, Director, Utility and Energy Services, CU

CU has reduced expenses for labor, operation, and management of onsite redundant hardware—including servers, firewalls, switches, UPS, and wiring—and reduced associated software licensing by 25 percent.

The university can now rely on real-time insights and reporting on energy usage, consumption, and demand for chilled water, steam, electricity, and water at the campus, building, and meter levels.

e-Magic has provided a reliable, secure, and scalable foundation for the expansion of TwinWorX Digital Twins built on Azure Digital Twins across additional campus subsystems and buildings.