Metro Property Manager Simplifies Portfolio-Wide Operations with Niagara

CHALLENGE

Bedrock Detroit is the largest commercial real estate firm in downtown Detroit with over 100 buildings and close to 20 million square feet under management. Bedrock launched a real estate expansion plan in 2011 that included a mix of buying, constructing, and renovating buildings. Bedrock quickly realized that managing the HVAC, lighting, and fire systems in these buildings would require training on 10 different software interfaces provided by various equipment manufacturers including Johnson Controls, Honeywell, Siemens, Lutron, Simplex, Notifier and others.

The proprietary software operating systems further complicated both the process of purchasing new equipment and the servicing of existing equipment. Proprietary systems often meant higher purchase prices and settling for the equipment that works best with the manufacturers ecosystem and not necessarily what works best for the building. On the service side it meant multiple contractors and multiple layers of management were involved in any major renovation or upgrade.

Bedrock realized that this complexity compounded across procurement, service, and management making it impossible to run a sustainable real estate operation. Bedrock management thus began a search for a scalable technology platform that would unify operations across the entire portfolio. Its primary aims were to bring simplicity to Bedrock operations and to future proof its portfolio to allow for further integration of IoT sensors that would propel Bedrock forward as leader in sustainability and tenant experiences.

SOLUTION

Bedrock took a two-pronged approach to their smart building strategy and teamed up with both Tridium and KODE Labs to unify their operational technologies. The Tridium Niagara Framework® was deployed across the portfolio, providing a local backbone at each building to consolidate information from the variety of building systems and to eliminate the headaches around procurement and service contracting.

The Bedrock strategy specifies Niagara JACEs to act as gateways that interface with the cloud-based smart building operating system KODE OS. Data from each Niagara device is centralized on KODE OS, where further processing is done to apply portfolio-wide standards for naming, visualization, and history. This approach radically simplifies Bedrock's ability to train users, manage buildings, and scale algorithms

"The Tridium Niagara® platform and KODE OS have enabled Bedrock Detroit to seamlessly merge various building automation systems (BAS) into one centralized database, which allows us access to HVAC, lighting, fire, generators, electrical metering and domestic water systems for monitoring, service / troubleshooting. This has created extremely efficient building operations."

Russ Holton
Director of Building Systems
Bedrock Detroit

FAST FACTS

Project Type: Advanced Integration

Building Type: Office, Retail and Mixed-Use Residential

Systems Integrated: 10,000 pieces of equipment including HVAC, Lighting, Fire Control and various IoT Sensor-based systems

Number of Control Points: 200,000 data points have been integrated through the Niagara Framework and KODE OS

for sustainable operation. Furthermore, KODE OS utilizes open APIs to connect to advanced IoT sensors such as occupancy and indoor air quality where that data is combined and optimized in accordance with the building systems.

RESULTS

KODE OS and Niagara Framework work in harmony to provide Bedrock with a scalable way to upgrade their buildings, manage their service contractors, train teams and incorporate IoT technology. Bedrock now has a single pane of glass to manage everything from traditional HVAC, fire, lighting, to cloud-based IoT sensors for indoor air quality, occupancy, security and more across the 100+ building portfolio. The KODE OS web and mobile app makes all features, functionality, and data accessible from anywhere in the world.

The operational tools are just the beginning, as the now centralized database allows Bedrock to utilize billions of data points for machine learning algorithms to optimize and dynamically control the energy usage, air quality, and tenant experience across their portfolio.
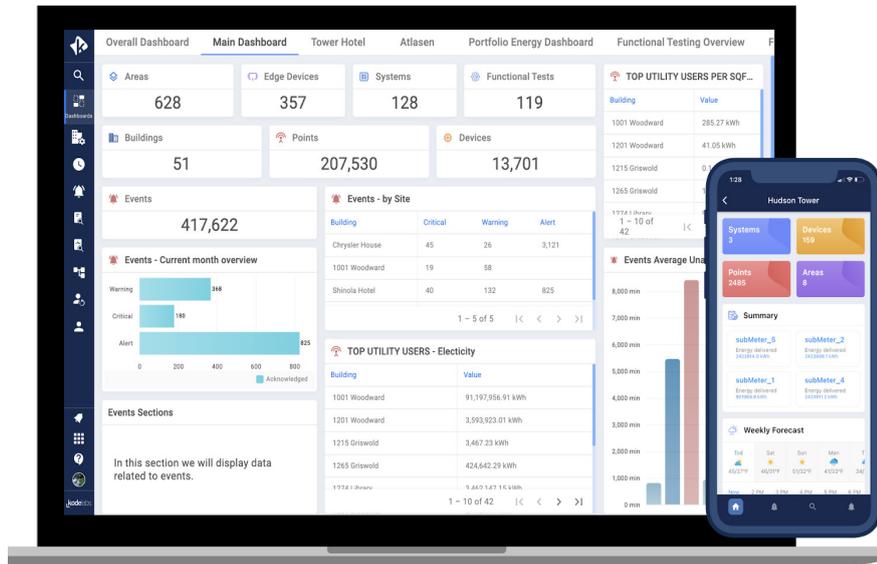
"The Niagara Framework is the initial enabler for multiple vendors within the Bedrock portfolio to integrate with KODE OS. Tridium's open distribution model makes it easy and effective to continuously specify Niagara for new buildings, retro-fits as well as tenant improvements."

**Tavis Kerr
Chief Product Officer
KODE Labs**

ABOUT KODELABS

The KODE Labs team of building engineers, software developers, and data scientists believe in a future of real estate that is easy, open, data driven, and carbon neutral. Its founders are serial entrepreneurs that have scaled and exited real estate technology companies for over $100M+.

ABOUT TRIDIUM

Tridium is a world leader in business application frameworks, advancing open data environments and easy interoperability. Our Niagara Framework® universal multi-protocol integration engine has fundamentally changed the way people connect and control devices and systems. Tridium delivers Niagara software and the JACE® controller and server platform through an open distribution business model with open protocol support. With almost one million instances worldwide, Niagara is helping a significant number of businesses, manufacturing enterprises and government entities improve performance and reduce energy, operating and other costs, and be more strategic and competitive. The Niagara Community is a large and active community of innovative developers, integrators, consultants, manufacturers, resellers and end users who use Niagara daily. Tridium is an independent business entity of Honeywell International Inc.

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