Microsoft

NANTUM OS

Smart Buildings & Sustainability Technology

Our History

By People Who Run Buildings, For People Who Run Buildings

1995 - NYC's First Smart Building

In 1995, Rudin Management's 55 Broad Street became the first fully wired office building in New York City, offering tenants satellite accessibility, single and multi-mode fiber optics, high speed category 5 copper wire, as well as a wide range of video conferencing, and internet access options and capabilities and a complete state-of-the-art work environment.

John Gilbert
EVP + Chief Operating Officer
Rudin Management

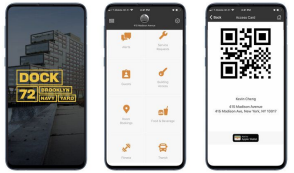
Gene Boniberger
SVP of Building Operations
Rudin Management

2009 - ConEdison Warning Program

Under President Obama's stimulus package focusing on smart grid demonstration, ConEdison developed a 45-second demand response warning system. ConEd then approached Rudin Management to develop a 30-second warning system. John Gilbert (COO) and Gene Boniberger (Dir. Ops) of Rudin now needed a platform that could act on this 30-second potential outage warning.

2015 - Prescriptive Data is Born

After two years of actively developing and testing Di-Boss the product was ready for prime time. Founded by John and Gene, with Rudin Management as the principal investor, Prescriptive Data was born and Di-Boss was renamed to Nantum. "Nantum" is derived from the ancient Algonquin word that means, "prayer or blessing," answering the prayers of property owners.



2019 - Nantum Tenant App Launches

Three years later, Nantum launched its Tenant Engagement app at Dock 72, one of the largest development projects in the Brooklyn Navy Yard, with partners Rudin Management, Boston Properties, and WeWork,.


The New York Times

POWER SURGE BLACKS OUT NORTHEAST, HITTING CITIES IN 8 STATES AND CANADA; MIDDAY SHUTDOWNS DISRUPT MILLIONS

2003 - Northeast Blackout

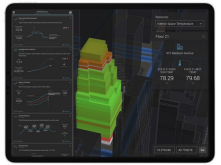
The Northeast Blackout leaves 55 million without power and occupants trapped in elevators and vestibules for hours. Power providers needed to develop a new system to alert real estate owners of potential power outages.

2013 - Rudin Launches Di-Boss

After an exhaustive multi-year search for a platform that could accept a ConEd demand response warning and shutdown non-critical building features, Rudin Management decided to build its own platform, Di-Boss (Digital Building Operating System).

2016 - Nantum Wins 1st Client

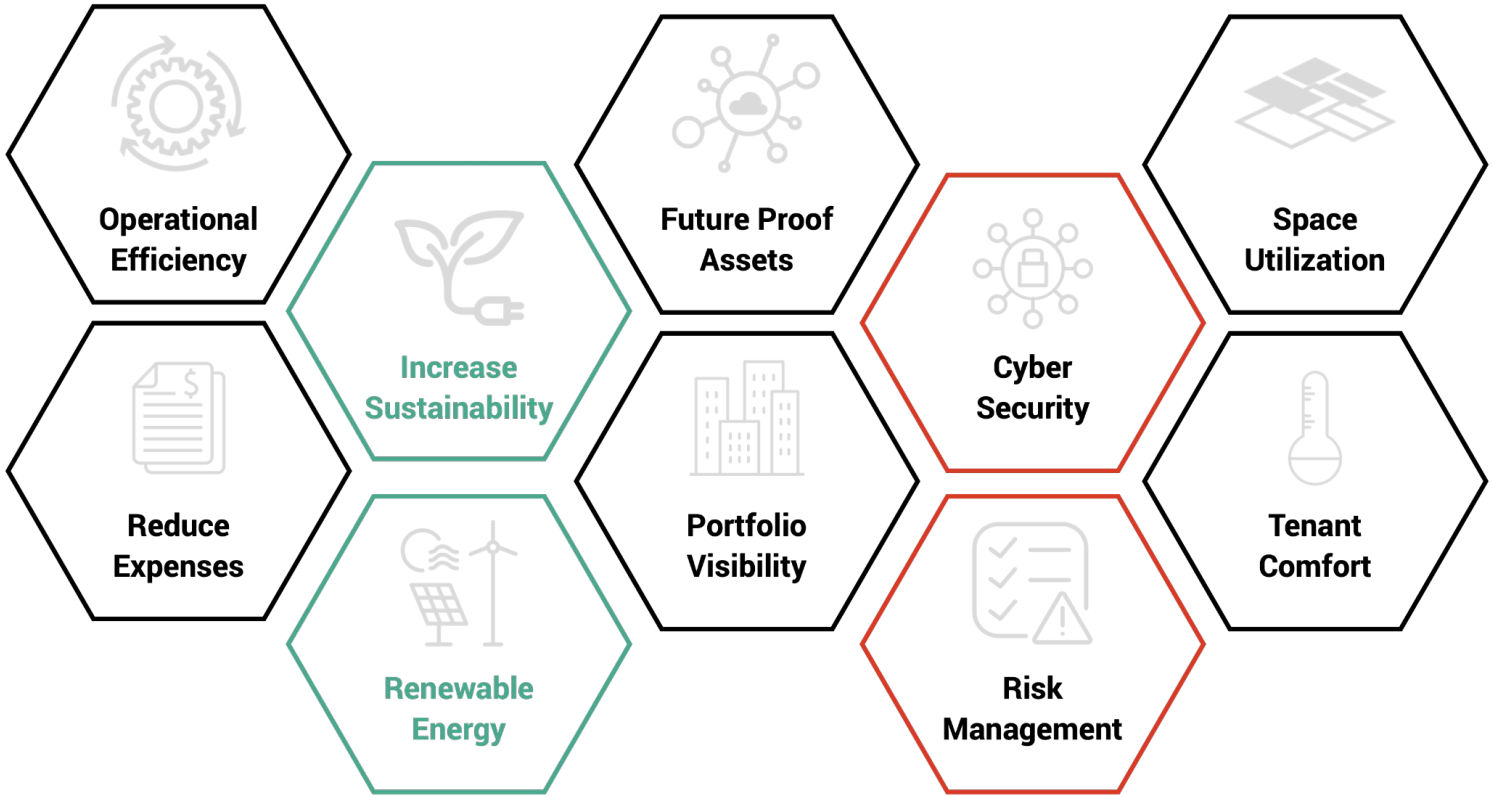
A few months after first showcasing Nantum at Realcomm 2016, Prescriptive Data won its first client outside of the Rudin portfolio. Blackstone's EQ Office integrated Nantum OS in one of its office buildings in downtown Boston, helping EQ reduce their energy usage and utility bills.



2020 - The Digital Twin

With 7 years of building data and over 50 machine learning algorithms Nantum launches the Digital Twin, a real-time view of building exterior and interior building data. Now building managers can identify building anomalies and see real-time space utilization.

We Exist To Deliver Business Outcomes



The Secure Building Data Lake: Single System Integration

No more siloed data sets, we create a single-pane-of-glass...

SENSOR NETWORK

Occupancy

- People Counters
- Space Utilization
- Parking
- Positioning

Building

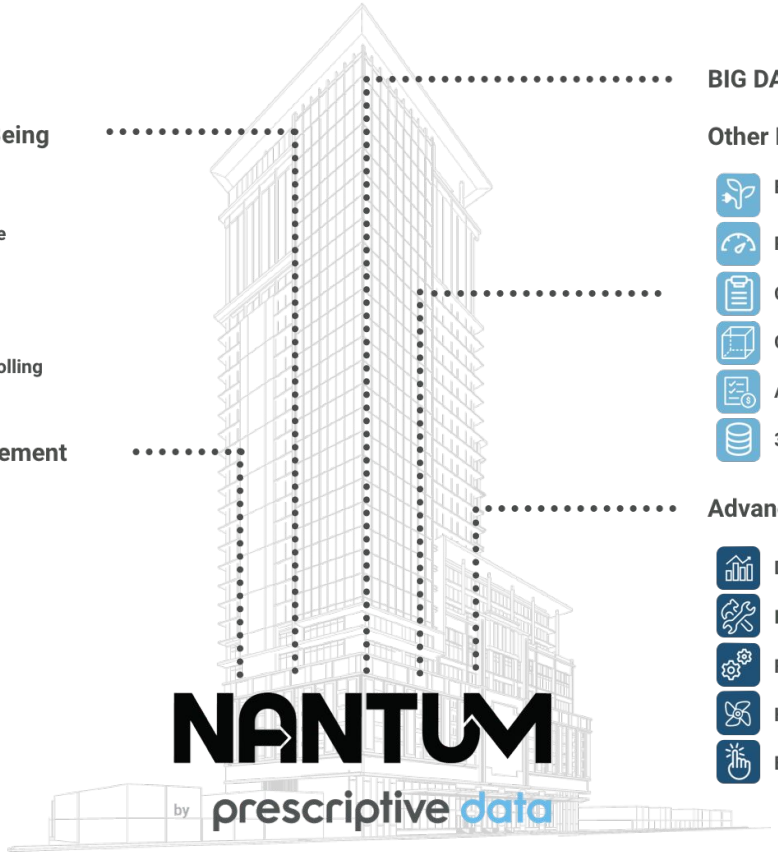
- Vertical Transport
- Fire & Safety
- Security
- Local Transportation
- Emergency Services
- Local Weather
- BMS

Space / Well-Being

- Air Quality
- Temperature
- Noise
- Light
- Feedback Polling

Energy Management

- Electricity
- Gas
- Water
- Steam
- Waste



BIG DATA PLATFORM

Other Inputs

- Environmental Benchmarks
- Past Building Performance
- CAFM/IWMS
- CAD/BIM
- Accounting
- 3rd Party Data

Advanced Analytics

- Data Visualization
- Improvement Initiatives
- Fault Detection & Diagnostics
- HVAC Optimization
- End User Applications

Integrate Your Ecosystem & Build Your Data Lake

Future Proof App Store

Nantum OS natively integrates with 60+ partners, focusing on:

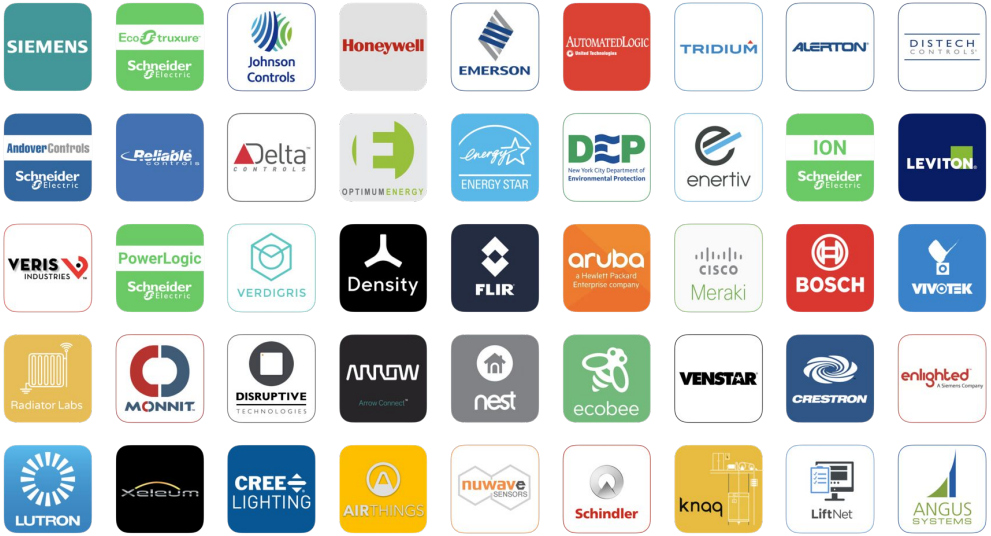
- BMS / HVAC
- Submetering
- Occupancy / People Tracking
- Water & Heating
- IoT Sensor Networks
- WiFi - Thermostat
- Lighting & Shades
- Air Quality Sensors
- Elevator & Escalator
- Access & Security
- Fire Alarm

<u>Distributed Energy Resources (DER)</u>

- Microturbines
- Photovoltaic Systems
- Fuel Cells
- CHP & MicroCHP Technologies
- Hybrid Power Systems

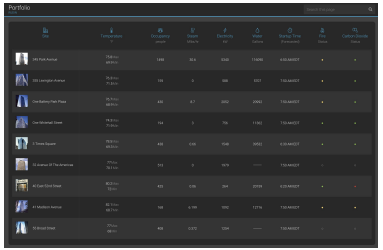
<u>Energy Storage Systems (ESS)</u>

- Ice Storage
- Battery Systems

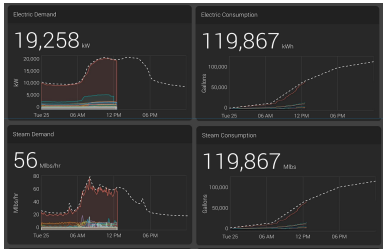


Capture Portfolio Data On Nantum

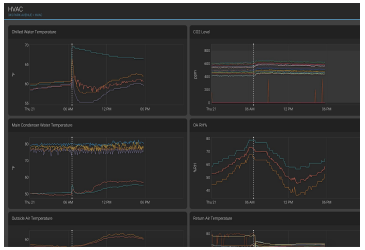
Vendor, Manufacturer, & Sensor Agnostic



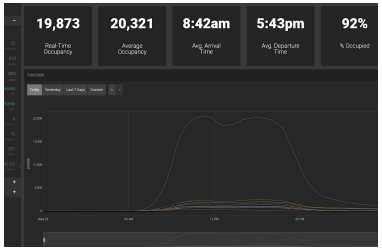
Normalized & Customizable Portfolio Data



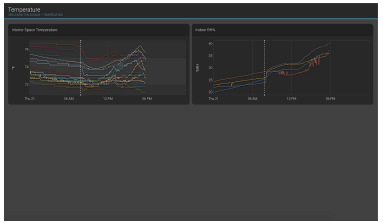
Real-Time Meter Data



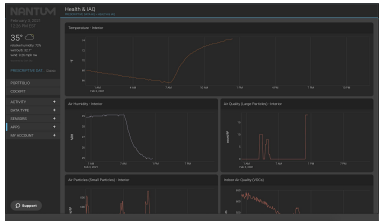
Real-Time BMS Command & Control



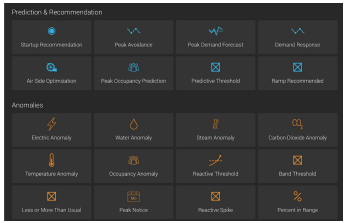
Real-Time Occupancy Data



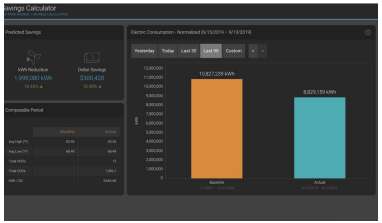
Real-Time Interior Temperature Data



Real-Time Indoor Air Quality



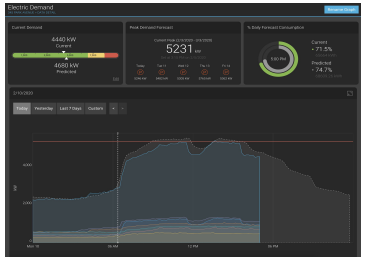
Real-Time Anomaly Detection Alerts



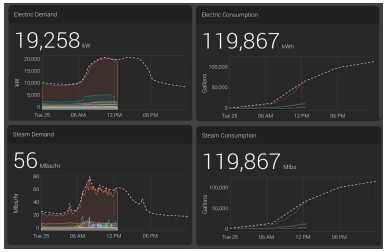
Real-Time Energy & Dollar Savings Calculation

Drive Energy Reduction & Revenue

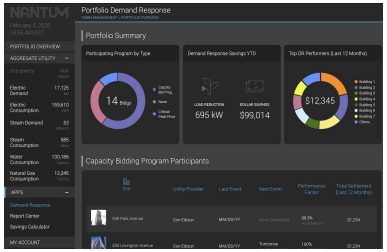
Carbon Emission Reduction & Monetization



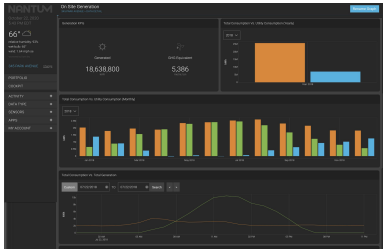
Real-Time Peak Demand Management



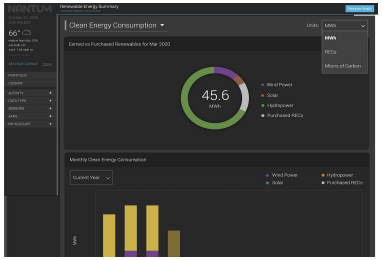
Real-Time Energy Management



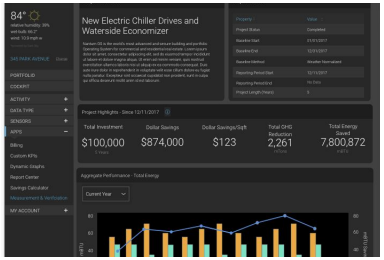
Real-Time Automated Demand Response



Real-Time On-Site Generation

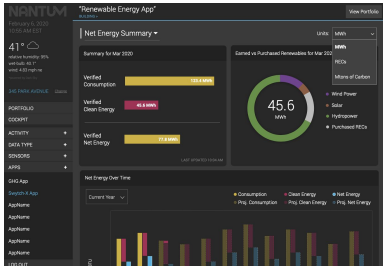


Renewable Energy Consumption



Real-Time Measurement & Verification

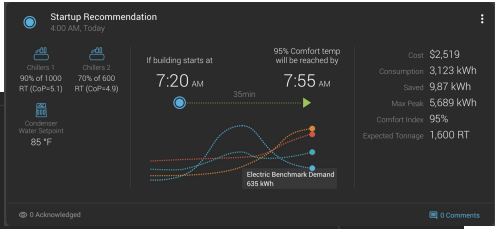
Real-Time GHG Emission & LL97 Fine Calculation

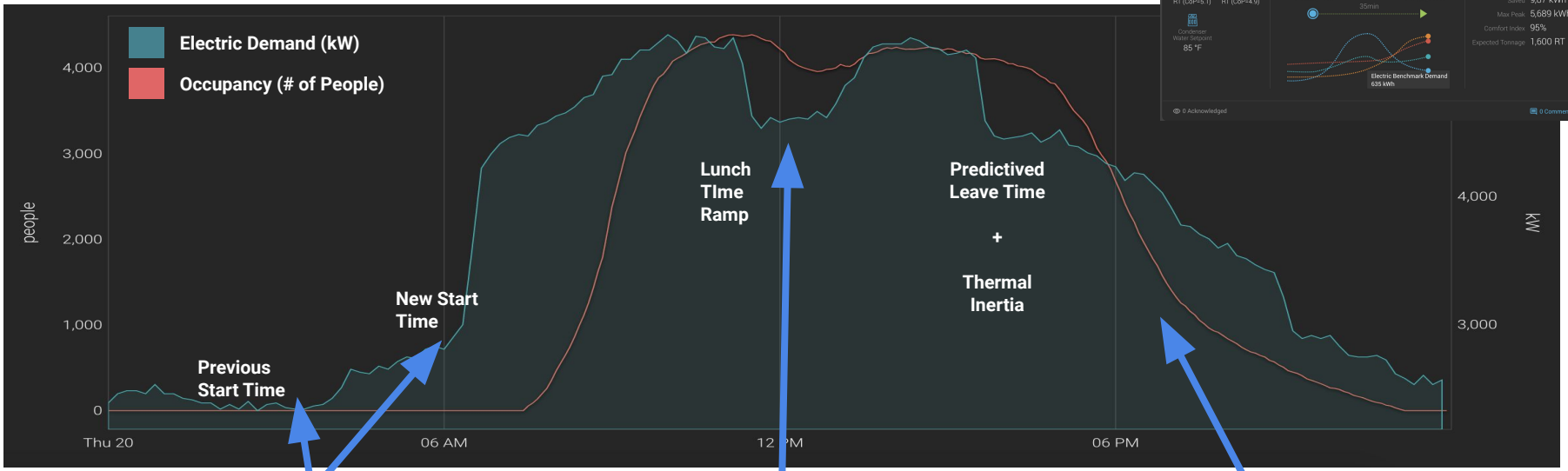


Real-TIme Carbon Monetization & Trading

A.I. Based Building Energy Conservation Measures (ECMs)

Real-Time BMS + Occupancy Correlation = Sustainability Automation





(1) Smart Building Startup

Nantum looks at historical BMS performance, occupancy data, and weather prediction to provide a recommended (or automated) building startup time. Use the least amount of energy to reach interior comfort temperatures.

(2) Mid-Day Ramps

Nantum correlates building occupancy with BMS setpoints and fan speeds to reduce building energy usage. As occupants leave and enter the building, Nantum adjust BMS

(3) End of Day Ramp Down

Nantum correlates a building's thermal inertia with end of day occupancy, to ramp down the BMS as people leave the building, all in real-time.

Solve Problems Faster With ML Alerts

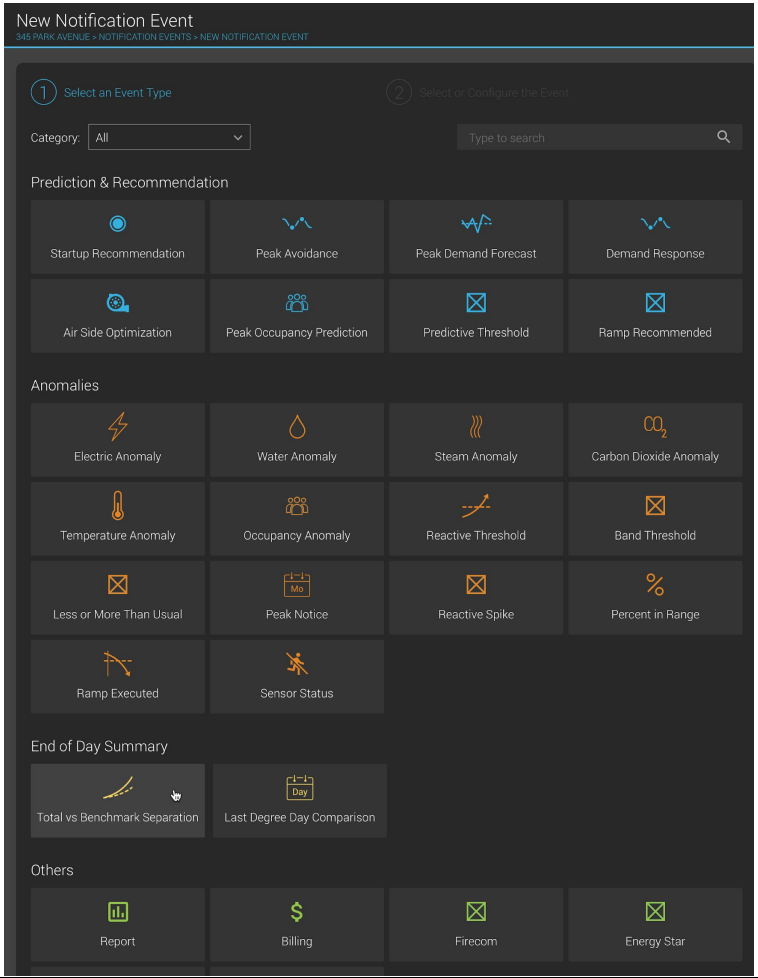
Faster Problem Recognition & Solution Identification

Create custom benchmark thresholds and alerts that meet your strategic goals that are shared through app notifications, email, or SMS texting.

We analyze whole building historical data (BMS, utility meters, and third-party sensors) to highlight hardware malfunctions, sensor performance, and unnecessary capital costs.

Preventive maintenance prediction alerts (flood warnings, electrical malfunctions…)

Tenant comfort anomalies (occupancy, comfort index, interior temperature, and air quality)



Schedule **Demo**

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