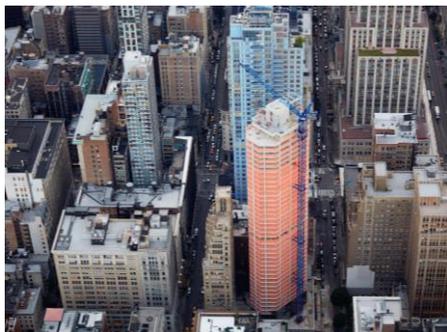


Enhance the efficiency and value of your real estate portfolio with the Prescriptive Data NANTUM* IoT solution

Prescriptive Data NANTUM*, powered by Intel, empowers property owners to reduce expenses, improve tenant retention, and optimize operational efficiency.



Challenges

Facilities management is getting smarter with IoT

Most buildings have some level of intelligence built in, whether for HVAC, lighting, fire safety, or other systems. But today, innovative Internet of Things (IoT) technologies are driving down the cost of building management systems (BMS) and making it possible to get more accurate and useful building data.

This presents incredible opportunities for building operators and owners

IoT platforms enable building operators to not only collect and visualize data, but use machine learning and artificial intelligence to uncover new business insights and continuously improve over time. This helps increase energy efficiency, lower costs, and maintain high tenant satisfaction.

But many solutions still create technical challenges

Most building management solutions still apply to standalone, siloed systems. This forces operators to handle numerous dashboards and manually calculate the impact they have on one another. Lack of integration between systems also makes it difficult to get the strongest insights out of the data collected.

Only an open architecture can deliver the full value of IoT for smart buildings

An open platform architecture makes it possible to integrate building systems in a single platform while preserving legacy investments and ensuring future scalability. A unified platform allows building systems to freely share and respond to data from each other and from external sources, opening the door for maximum profitability, tenant retention, and operational efficiency.

Business Drivers and Desired Outcomes

Properties of all kinds – whether corporate, commercial, hospitality, municipal or residential – are looking for IoT solutions to help them:

- Increase profitability (NOI) and asset value (NPV)
- Attract and retain tenants
- Improve operator efficiency
- Enhance visibility of building performance
- Ensure scalability
- Protect data and infrastructure
- Bolster environmental sustainability

Solution Overview

NANTUM is a cloud-based, highly secure building operating system (OS) that integrates with any existing building system (including non-BMS facilities and BMS of any make, model, or year) as well as third-party applications with open APIs.

Through a combination of local data harvesting and direct-cloud connected hardware, NANTUM captures and stores real-time data from previously siloed building subsystems. Not only are all building systems united in a single mobile platform, but correlations made between the systems can uncover optimizations never previously explored in building operation. Intel's highly secure, scalable, and flexible platform helps the solution connect to a diverse set of building systems and expand seamlessly.

NANTUM applies the data in three ways: first, it adjusts systems in near-real time through machine-to-machine automation; second, it alerts building operators of operational drift via text or email; finally, it displays KPIs for portfolio owners, building managers, and operators in a supervisory cockpit. The cockpit shows mechanical, operational, and utility performance while providing intuitive insight, identifying inefficiencies, and recommending adjustments to continuously improve building performance.

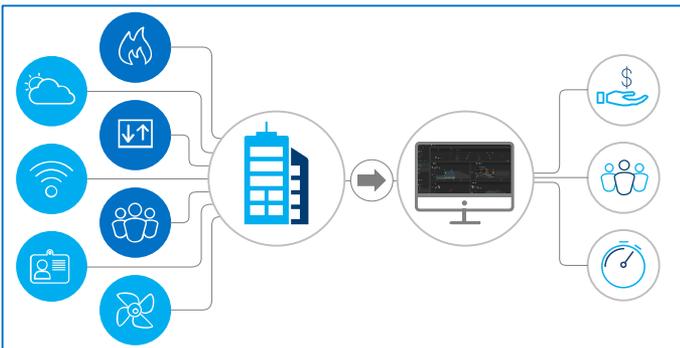


Figure 1. NANTUM provides a single platform for managing and gaining insight from a virtually limitless number of systems

Solution Components

- Intel®-based Logic Supply ML100 Series NUC
- Intel®-powered IoT sensors and collectors
- Intel-powered data center switching/routing
- NANTUM software designed to operate on Intel-based gateways
- AWS* Intel-specified compute and processing



¹ Prescriptive Data, 345 Park Case Study, 2017

*Other names and brands may be claimed as the property of others

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Business Benefits

Prescriptive Data NANTUM helps property owners and management enhance the efficiency and value of buildings with IoT, unlocking tangible benefits for their business:



Reduce expenses

- Deploy quickly
- Improve energy efficiency
- Scale easily



Improve tenant satisfaction and retention

- Increase tenant comfort
- Reduce hot/cold calls
- Strengthen property brand



Optimize operational efficiency

- Enhance control, automation, and analytics
- Empower operators to save time and make better decisions
- Improve visibility for executive decision-makers

Proven Results

345 Park Avenue, a 1.8 million square foot building in NYC, used NANTUM to save energy without sacrificing tenant comfort. NANTUM identified and acted on an opportunity to optimize startup times and reduce energy use in response to real-time occupancy¹. The customer:

- Cut electric consumption by 11% year over year
- Saved over \$1.5M in energy costs over three years
- Reduced hot and cold calls from residents by 70%
- Received a \$155,000 grant from NYSERDA
- Contributed to the NYC mayor's Carbon Challenge initiative

Where to Get More Information

For more information about NANTUM, visit the [Prescriptive Data website](#).

For more information about Intel's work in this space, visit the [Smart Buildings page](#).