

Cognizant Smart Buildings – Redefining Spaces



Challenges

Lack of Insights and intelligence to manage Real Estate

Manual operations and reactive maintenance & services, Absence of comprehensive building analytics. Low space utilization levels and growing Real estate portfolio. Reduce the carbon footprint of the RE portfolio. Improve Operational efficiency and standardization of RE Management process. Need to Improve workforce productivity and comfort levels and attract talent. Regulatory and compliance requirements like Green compliance, LEED, FASB certification /compliance etc. Multitude of disparate closed systems operating in silos in a facility, Lack of an integrated view of all buildings and assets spread across the globe.



Cognizant Technology Solutions

Cognizant Smart Buildings – Redefining Spaces

Cognizant's Smart Buildings offering integrates the disparate systems, assets, and sensors present across your real estate to provide a unified transparent view of your portfolio. For powerful enterprise-wide insights, the solution integrates with your enterprise and workplace management systems to automate your real estate processes and reporting. The solution measures the performance of your facility using multiple KPIs to improve the efficiency and standardization across the portfolio. The Cognizant Smart Buildings solution can integrate with your Building Management System (BMS) and facility management system, along with key assets and specific sensors to provide real time insights and intelligence for Engineers and Facility Managers for efficient, effective day to day operations.

Cognizant Advisory services team can perform an initial assessment to understand the ecosystem, identify the gaps, provide the necessary interventions and develop a roadmap for your transformation journey. Enabled by Cognizant's OneFacility solution accelerator on AWS and our team of team certified associates, the proper solution features can be rapidly deployed in your facilities to demonstrate target outcomes. The solution is then scaled to realize these benefits across the portfolio.

Benefits

Cognizant Smart Buildings offering transforms your real estate spaces to be efficient and green while enhancing human-space interaction. The intelligent and modular solution caters to the various stakeholder personas in your Real Estate and Business functions.



Improve Energy Efficiency

Intelligent Energy management with the ability to track real time energy consumption, forecast and track the Efficiency targets.



Improve Operational Efficiency

Improve operational and efficiencies with the ability to provide on-demand facility services, digital field services and implement predictive maintenance of assets.



Improve Space Utilization

Rationalize real estate portfolio with the ability to track real time space utilization and unlock insights to reengineer and optimize spaces.



Improve your Grip on the Portfolio

Define KPIs, standardize processes, and reporting to drive efficiency across your portfolio. Get real time data and insights, to forecast and budget accurately.

Cognizant on AWS

To help Real estate organizations and functions embrace digital technologies, Cognizant launched its holistic Smart Buildings solution on AWS. Cognizant Smart Buildings is an integrated solution that connects and consolidates disparate systems and sensor data creating high-performance facilities that meet the intricate requirements of today's top RE portfolio managers. Cognizant chose AWS for hosting Smart Buildings to take advantage of AWS Internet of Things (IoT) services, and the scalability and flexibility that AWS offers. AWS supports a wide range of programming languages, protocols, and web application platforms, all of which aided in developing the solution to meet industry needs. Additionally, Cognizant Smart Buildings offering utilizes specialized components of AWS to create microservices, which handle smart building use cases including occupancy, indoor positioning, activity-based cleaning and maintenance, visitor handling, and service queue congestion.

Features



Event-Driven Scalability

With buildings continually talking to us, the high rate of data ingestion is enabled by Amazon Kinesis, which processes and analyzes data in real-time at scale, providing timely insights such as alerts when thresholds are breached. With the help of Shards, Kinesis provides Cognizant Smart Buildings with the capability of processing building asset and sensor data in parallel. The serverless architecture of AWS Lambda allows Connected Places to automatically scale based on the workload, and helps in efficient utilization of compute resources. Together, Lambda and Kinesis enable an event-driven architecture that lets services automatically perform work in response to events triggered by publisher services.



ML Based Facility Performance Optimization

Powered by Amazon Sagemaker, Cognizant's Smart building solution builds, trains, and deploys machine learning (ML) models for environment condition, asset maintenance, and energy management. Amazon Sagemaker offers a diverse set of algorithms and models to train and deploy in a simplified manner, per the contextual requirements of a facility. Connected Places intelligently optimizes HVAC operating schedules and regulates the environmental conditions based on occupancy data, time of the day, and user preferences. Maintenance schedules of assets are redrawn based on usage, eliminating unwarranted planned maintenance of assets.

Case Study: A Global REIT



Challenges

A global real estate investment trust (REIT) with portfolio of properties spread across the globe wanted to transform its 80 year old 3 prime legacy properties with more 12,000 rental units that were facing high overhead and personnel costs and inefficient operating performance.



Solution

We designed and implemented a smart building management solution on AWS cloud leveraging the Cognizant Smart Buildings solution offering. Integrating multiple assets and enterprise systems the solution provide real-time intelligence and remote management capabilities.



Results

Improved the operational efficiency of the facility management teams.
Real time intelligence is available to make strategic forecasting decisions.
Improved the marketability of the legacy properties.

Get started with Cognizant Smart Buildings solutions on AWS

Visit <https://www.cognizant.com/Resources/connected-places.pdf> to learn more.