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Ingenuity for life



Enhancing Building Performance Through the Power of Data

Forward-thinking organizations today are working closely with building operators and facilities teams to create perfect places – facilities that support their missions and help accomplish business objectives.

Digitalization is the next stage in the evolution of buildings moving from an expense to an asset. New building equipment and technologies are being produced with sensors and connectivity that enable them to generate and deliver huge amounts of data to building operators. For the unprepared, this deluge of data can be overwhelming and hinder operations.

Following is a four-step process that takes into account the particular needs of an existing building. This process incorporates best practices in planning, implementation, utilization, and measurement via key performance indicators (KPIs). It is designed to successfully guide organizations so they can enhance staff productivity, increase system performance, reduce capital and operating expenditures, and be adaptable for the future.

4 Step Process

1. Define business objectives and KPIs

2. Connect systems and collect data

3. Analyze data to create actionable insights

4. Take action and continually enhance performance

Step 1

Define business objectives and KPIs

What is the **mission** you want your building to support?



What goals are you setting for yourself and how will you objectively track and **measure success?**

While some objectives, such as **increasing uptime** or **reducing costs** are familiar to everyone, other objectives can be very specific to the type of organization.

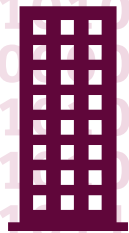


With business objectives in hand, you can begin to strategize how your building can contribute. **The importance of defining the right KPIs cannot be stressed enough.** If the wrong metrics are selected, your digitalization program may proceed seemingly on track but without doing anything to help your organization reach its larger goals.

Step 2

Connect systems and collect data

The connect-and-collect step is the **heavy-lifting part** of creating a smart building.



Some organizations may want to start small, choosing only certain pieces to be connected before adding others. Some may take a more aggressive approach to generate greater synergies from more and better data. The right approach depends upon your organization, budget, and goals.

Here is what's involved:



Connected Systems

Physical assets should be connected through a central network allowing you to monitor and measure performance.



Network Infrastructure

The right network infrastructure can handle large amounts of data with speed and accuracy.



Smart Devices

Smart devices and sensors can be deployed to facilitate additional connectivity and data collection.



Third Party Data

Seamlessly integrate outside data and use it to support your operations.



Centralized Data Collection Platform

The platform normalizes data from multiple sources both internal and external.

Step 3

Analyze data to create actionable insights

Step three involves turning the **data** generated by your building into actionable insights. To do this right requires a combination of **analytical tools** and **human expertise**.



The results can be invaluable to your organization, helping you to:

- QUANTIFY**
the cost of inefficiencies
- PREDICT**
occupant needs
- RECOGNIZE**
potential failures before they occur
- IDENTIFY**
unnecessary or inefficient equipment usage



Central to this effort is an **analytics platform**. Building professionals use the information presented by the analytics platform to create actionable insights.

Based upon what the building is telling them, they can identify actions to take or adjustments to make to ensure **KPIs are met** and business goals achieved.



Step 4

Take action and continually enhance performance

A smart building provides its owners and operators **significant advantages** when it comes to enhancing performance.



A data-driven approach enables you to:

PRIORITIZE
investments



DEPLOY
prescribed actions



ENACT
proactive and predictive maintenance



SUPPORT
decisions with data



Driving positive outcomes for your organization:



Enhance productivity by 20 to 25%



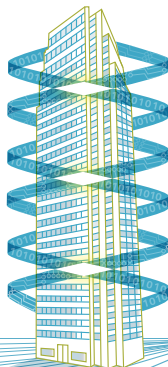
Increase performance with 75% fewer breakdowns



Reduce costs up to 30%



Improve adaptability to enable future success



To turn big data into actionable insights and drive tangible results

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