

CloudFIMs: An Analytic Service from Siemens

Optimizing your environment with performance data

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Building operators tend to employ two general approaches to maintenance: reactive, when the equipment is run until it fails, and preventive, which means servicing equipment based on a fixed schedule rather than necessity. Both approaches can result in unplanned downtime, increased energy usage, and overruns in planned costs.

Traditional maintenance approaches are failing today's businesses

Because the majority of all maintenance programs employed by facilities are reactive in nature, the cost to repair or replace equipment is typically much higher than if problems were detected and fixed earlier—not to mention the costs associated with lost productivity during downtime.

CloudFIMs from Siemens Analytic Services

To overcome these problems, building owners and operators are seeking new maintenance approaches that incorporate condition-based analytics to more proactively identify issues and address them on an as-needed basis. CloudFIMs, one of Siemens Analytic Services, uses performance data and trends from the building automation system to identify Facility Improvement Measures (FIMs) and to implement them remotely. By identifying and correcting schedule and programming issues, buildings maintain an efficient and continuously optimized environment.

Controlling the cost of ownership and enabling savings

Over the 40-year lifecycle of a building, the cost to operate the building and for the energy it consumes accounts for 50% of the building's total cost (Figure 1). Research shows that building owners and operators who take a more proactive and comprehensive approach to building maintenance, which includes CloudFIMs from Siemens, can reduce a building's overall cost of ownership significantly (Figure 2).



Highlights

Identify Facility Improvement Measures (FIMs) and implement them remotely to maintain an efficient and continuously optimized environment.

Key benefits

- Proactively identify energy and operational efficiency improvements
- Reduce total cost of building ownership
- Prioritize activities based on business goals and impact
- Leverage Navigator to ensure issue resolution and visibility

Common KPIs

- Maximize energy efficiency
- Continuous optimization
- Low cost of entry

CloudFIMs focuses on the most common building problems and takes proactive, corrective action remotely using the latest in building analytics. CloudFIMs dashboards and proactive services give customers visibility into building performance by deploying a basic set of analytics to track and report operational issues, as well as track savings that result from remote corrections.

Key advantages

- Identify energy and operational efficiency improvements proactively
- Reduce total cost of building ownership
- Prioritize activities based on building goals and impact
- Leverage Navigator, our cloud-based analytics platform, to ensure issue resolution and visibility

How CloudFIMs delivers energy savings impact

CloudFIMs have been specifically selected to show quick, high-impact energy savings results, and includes repairs that can be identified and diagnosed remotely and have a high probability of occurring. CloudFIMs features a menu of facility improvement measures:

FIM	Description
Outside air temp sensor deviation	Determines downstream HVAC system operation and schedule, and can deliver high energy savings depending on the system configuration
Boiler reset schedule deviation	This is often changed manually or not implemented, and adjustments can save up to 10% of facility energy consumption
Chiller performance visibility	Shows chiller plant performance and identifies the need for a conversation about complete a chiller optimization strategy
Supply air static pressure reset deviation	This demand-based system management can save up to 5% of facility energy consumption
Supply air temperature reset schedule deviation	This is the most commonly overridden parameter, and adjustment can deliver a 5-10% energy impact
Free cooling not enabled or not working	Improves economizer mode operation by using enthalpy- based operation, instead of straight dry bulb operation; this FIM can save 5-10% of energy spend
Simultaneous heating and cooling elimination	Prevents reheating and recooling air simultaneously, which can save up to 20% of facility energy consumption
Overventilation prevention	Prevents heating cold, outside air for no reason, and can save up to 18% of facility energy consumption

Driven by outcomes

By taking an outcomes-based approach to understanding your business needs and goals, Siemens can establish key performance indicators (KPIs) aligned with your equipment, spaces, and goals. Results are always documented and shared through Navigator and other customer reporting.



Equipment options available

- AHUs
- Boiler plant
- Chiller plant (KPI monitoring)

Secure, flexible remote

 Flexible – Siemens can connect wirelessly, via VPN client, virtual network, or separate network connection.
Secure - ISO 27001 Certification applies to VPN client and virtual networks to specify the requirements for establishing,

implementing, maintaining, and continually improving an information security management system within the context of the organization.

connection

Siemens Industry, Inc. Building Technologies Division 1000 Deerfield Parkway Buffalo Grove, IL 60089

usa.siemens.com/digitalservices

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