



Digitally transform your retail stores

Insights-driven solutions for smart
retail chain operations.



The retail industry is evolving at a rapid pace. Intense competition and pressure from online sales continue to drive retailers to explore ways to improve the customer experience inside stores. Retailers also face the challenge of managing costs. Facility energy costs and equipment maintenance costs can be significant, but can also be controlled. Managing the operations of facility equipment that span across a large portfolio of buildings is not an easy task. Optimizing the performance of a wide variety of equipment with different capabilities, of different ages and facing diverse regional weather patterns can be quite challenging.

Now, retailers can leverage data analytics and intelligent controls to simultaneously tackle the challenges of reducing costs and improving customer satisfaction. Using data to manage operations also generates many new possibilities for optimizing occupant comfort, making equipment replacement related decisions and increasing the adoption of new building technology.



Benefit from working with Carrier Aboard

Carrier Aboard offers Artificial Intelligence (AI) and Internet of Things (IoT) enabled solutions and services to allow retailers to transform the way they manage the facility equipment and their operations. Our strong track record of delivering quick, positive cash flow can help mitigate risks of program investments. We help you optimize the existing equipment in your stores, whether it be it lighting, Heating, Ventilation and Air-conditioning (HVAC) or refrigeration equipment.

Every retail store and the energy-consuming equipment within it is unique and we understand the context in which these equipment operate. The Aboard Insights platform, our intelligent AI and IoT platform, collects data from multiple sources, analyzes it and contextualizes it. The platform then offers predictive insights and even acts on them autonomously to ensure better equipment operations and continual savings, with limited capital investment at the store level.



Increased visibility
into store operations



Enhanced customer experience
and temperature compliance



Sustainable
energy savings



Proactive equipment
management and maintenance



Increased equipment
efficiency



Improved productivity
of store personnel

Services that transform retail operations

Our services improve operations across formats such as department stores, grocery stores and supermarkets, warehouses, specialty retail, convenience stores and discount stores. These services can be scaled from a few hundred to a few thousand stores very quickly. We offer the following two services to retailers:

1. Carrier Aboard Smart Support Service

This service provides operational support for store associates and technicians visiting the store. The key objective is to ensure that the lights and HVAC equipment operate as per the business schedules, and the stores are comfortable for customers and associates throughout the different seasons. The backbone of this service is our Carrier Customer Command Centers - our teams of data scientists, analysts and experts that offer remote commissioning, monitoring, diagnostics and prognostic support for building operations.

A technical service desk at the command centers is reachable 24x7 through a 1-800 toll-free number or through an existing work-order system. Problems with store operations can be routed to the command centers via calls or tickets and the team focuses on resolving them remotely, as much as possible. **For example, the team remotely resolved over 92% of HVAC and lighting problems reported by site staff for a big-box retailer with over 1,500 locations in North America.** The command centers deploy planned changes to store schedules, like extending working hours during the holiday season or for special promotions and events. The team also deploys required changes when extreme weather situations occur.

The Aboard Insights platform is integrated with building automation systems to analyze data from energy meters and other sources, like weather-feed and work-order management systems. With the Aboard Insights platform, retailers get access to analytics-based actionable insights, which aim to improve store comfort, save energy and trigger proactive equipment maintenance to avoid failures. The command centers resolve issues remotely when possible and through physical interventions when required. The team issues smart dispatches to field technicians and equips them with insights and recommendations from the Aboard Insights platform. In most cases, these proactive actions are taken without the store even realizing or complaining about the problems.

The responsiveness and effectiveness of the Smart Support Service is measured by metrics that include response time, resolution time, repeat problems, number of proactive dispatches and ratio of remote resolution versus the total number of issues reported to save costs. The problem management function within the command centers ensure that the quality of service is maintained and continuously improved over the duration of the contract by finding the root cause of frequent issues.

1. Carrier Abound Smart Support Service

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2. Carrier Abound Smart Save Service

This is a comprehensive service that includes services rendered under Smart Support with the aim to offer energy and operational savings to retailers. It offers the combined power of human and machine intelligence. Insights-driven strategies are deployed to enhance policies and equipment operations. Equipment inefficiencies are detected and most of the corrective actions are taken remotely, where possible, lowering the number of site interventions significantly. When site interventions are necessary, they are done through combining multiple work orders and prioritizing technician dispatches so that a retail store does not have to face equipment downtime.

The savings provided are based on measurement, and verification is done based on adherence to international performance measurement and verification protocol.

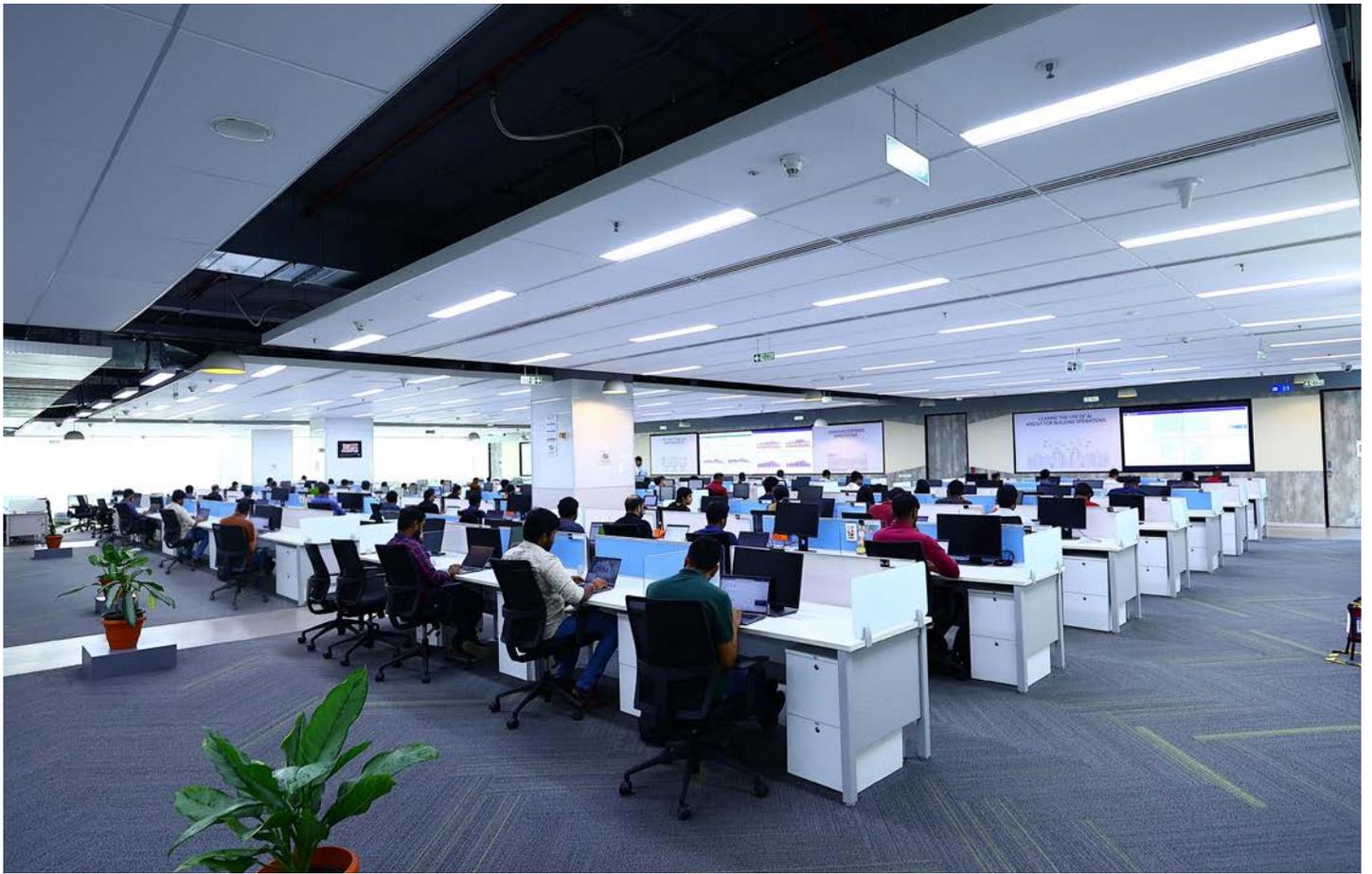
We have delivered energy savings of over 24% over the baseline year with year-on-year increased savings to multi-site customers. These customers have worked with us for over a year and each have more than 100 sites.

How we do it

Insights from the Abound Insights platform

Retailers typically face difficulties in locating problems, and then arriving at the best course of action across the enterprise. Commonly used technology like alarms are suitable to respond to incidents after they have occurred. However, the Abound Insights platform provides predictive insights on equipment performance in advance, before it impacts the service.

The insights from the Abound Insights platform are made available via the Abound Insights assistant which is available on a web portal and as a mobile application.



The Carrier Customer Command Centers

The Abound Insights platform provides hundreds of recommendations to optimize equipment operations for a large multi-site portfolio, some of which are automatically corrected by the platform while others require remote or on-site action. Our 24/7 command centers manage operations and supports store associates and vendor partners of the retailers.

Support processes are centralized and a complete documentation of Standard Operating Procedures is created. This ensures that the enterprise operations are managed as per standard processes and not on an ad-hoc basis. The Service Desk standardizes store set points, operating schedules and equipment operation logic.

Process Transformation

One of the most transformational aspects of our proposition is the proactive service model. With our proactive service model, the command centers do not wait for equipment to fail or for complaints to come in. The team anticipates and solves problems using the predictions from the Abound Insights platform.

The second part of process transformation involves field service. The team at a command center carries out proactive dispatches when multiple pieces of equipment in the store have health problems like broken dampers or inefficient compressors. When field interventions are required, the command center uses the insights to combine work orders for a given site and carries out the field dispatches. The repair feedback is completed by checking the equipment condition using the Abound Insights platform once the repairs have been carried out.

These two aspects enable a high equipment up-time, improved temperature compliance and reduced site dispatches



Tangible, award-winning results delivered to industry leaders

For a leading big box retailer in the U.S.A., we helped save **over 24% in energy across over 1,900 stores in consecutive years**. In addition, we saved over 4% of the maintenance costs in 4 years. We also rationalized the number of forklifts per store by installing sensors and computing the average utilization. **This project won a 2017 Environmental Leader Top Project of the Year award.**



Through our data driven services, a large retailer in the U.S.A realized an **average of 13% in annual savings on energy expenditure in 5 years, across 1,200 stores** that covered over 40 million sq.ft. of retail space. The retailer has been recognized by the CDP (formerly Carbon Disclosure Project) as an environmental leader on the Climate A List.



We achieved savings of **over 8% in energy consumption across almost 1,500 stores** of a leading pet supplies retailer in a year. 90% of store complaints for lighting and HVAC were resolved remotely. **This project won a 2018 Energy Manager Today Top Project of the Year award.**



We achieved energy savings of **almost 8% over 1,200 stores** of an office supplies retailer in a year. We remotely diagnosed and resolved 90% of store issues related to lighting, HVAC, and occupant comfort, and thus minimized technician field visits. **This project won a 2019 Energy Manager Today Top Project.**



Our efforts have resulted in a **34% reduction in energy wastage incidents across 325 connected stores** of a major hypermarket and supermarket chain in South Asia. Additionally, we achieved an **impressive 80% reduction in air-conditioning undercooling instances within a year**. This remarkable project earned us the prestigious **'2023 Organization of the Year'** award for delivering **excellence in customer service**.



Write to us at abound@carrier.com for more on how we can help your company achieve its business and sustainability goals.

About Carrier Abound

Carrier Abound provides digitally connected lifecycle solutions and services for diverse building portfolios. The solutions and services enable building management to see deeply and broadly across their assets, prioritize and act on real-time insights, and refine, adapt, and scale on a continual basis to improve energy efficiency and asset performance, enhance occupant comfort and productivity, and streamline compliance reporting. Carrier Abound is part of Carrier Global Corporation, global leader in intelligent climate and energy solutions.

For more information, please visit abound.carrier.com and join the conversation on [LinkedIn](#).

