

# CARRIER COMBINES DATA FROM 100+ ERPS FOR ENTERPRISE ANALYTICS WITH SNOWFLAKE

## MANUFACTURING



**COMPANY** Carrier  
**LOCATION** Palm Beach Gardens, Florida

### SNOWFLAKE WORKLOADS USED



Carrier provides building and cold-chain solutions that inspire a healthy, safe, sustainable, and intelligent world. Carrier offers more than 80 brands to support its HVAC, refrigeration, and fire and safety customers. To enable data-driven decision-making across multiple segments and brands, Carrier ingests and analyzes large amounts of data, from operational to IoT and connected product data.

## STORY HIGHLIGHTS:

### Separate storage and compute

Snowflake's multi-cluster shared data architecture allows Carrier to support a variety of data-driven use cases while effectively managing costs.

### Native SQL support

Snowflake's native SQL support bolsters Carrier's ability to recruit technical talent.

### Snowflake Marketplace

Snowflake Marketplace offers a streamlined approach for accessing ready-to-query data sets from data providers.

## RELEVANT KEY METRICS::

- 100+ ERPs integrated into Snowflake
- Visibility into 100% direct spend and 80%+ indirect spend at the Carrier Enterprise level
- Visibility into all sales and orders for key business segments
- Visibility into open orders, past due backlog, and detailed inventory at the factory level for key factories
- Visibility into global aftermarket services revenue and other key metrics by business
- Understanding of customer segments, historical pricing, and price optimization for certain business segments

## CHALLENGE:

### Unifying data across multiple segments, brands, and source systems

Carrier sought to standardize and centralize its data and analytics for the entire organization. However, data maturity and infrastructure varied from one business unit to the next, which made it difficult to develop a cohesive data strategy. Joining data from over 100+ Carrier ERP systems seemed practically impossible, preventing them from getting a consolidated view of sales, purchases, and spend across the organization.

COVID-19 accelerated the need for timely, reliable insights. Component shortages, shipping delays, and other supply chain issues impacted Carrier, the same as any other manufacturing company.

Binu Varghese, the Global Leader for Data, Analytics & AI, and his team instituted a multifaceted plan to understand contextual business problems of the day, increase awareness of how data can help enable the insights to action journey across the organization, and simultaneously reimagine Carrier's overall data environment. "We needed a platform that was modern, yet easy to use," says Varghese.

**"I appreciate Snowflake's vision for the platform and that many of its features were and continue to be ahead of their time."**

—BINU VARGHESE,  
Global Leader—Data, Analytics & AI, Carrier

## SOLUTION:

### A platform for scalable manufacturing analytics

After evaluating different solution options, Carrier turned to Snowflake. "Snowflake's vision and features are setting the tone for what the rest of the platforms should do," Varghese says.

Snowflake's underlying architecture, which allows for separating storage and compute while still seamlessly sharing data across virtual warehouses, allowed Carrier to support a variety of data-driven use cases, while effectively managing costs. Snowflake's native SQL

support bolstered Carrier's ability to rapidly recruit technical talent. According to Varghese, "SQL is a bread-and-butter skill in the data world, which makes it really easy to find and which helps us to rapidly scale the team and deliver quick value to the business."

Snowflake's helpful, knowledgeable staff played an important role in advancing Carrier's data goals. "From my first interaction to today, I've found Snowflake to be a company that's willing to work with its customers," Varghese says.

Using Snowflake Secure Data Sharing to share data with suppliers and distributors is a key capability that Carrier is currently exploring with some of their customers. Snowflake's Data Marketplace, which enables secure and governed access to ready-to-query data sets, such as weather data, is another area of significant interest at Carrier. According to Varghese, "Data Marketplace significantly reduces the time needed to access third-party data sets, cutting out the need to sign separate contracts with different data providers, and is a key capability that the Data Science team at Carrier is exploring for different use cases."

## RESULTS:

### Combining data from 100+ ERPs for reliable spend analytics

Integrating data from more than 100 ERPs in Snowflake provides a comprehensive view of Carrier's spend globally. The spend analytics solution built on Snowflake makes it possible to analyze Carrier's global spend by commodity/service and supplier. According to Varghese, "The spend analytics solution truly unleashes the ability to have more specific and meaningful conversations with our vendor partners."

“**Exchanging certain kinds of information with partners in a supply chain can help optimize operations to the next level, across the end-to-end supplier-carrier-customer ecosystem.**”

—BINU VARGHESE,  
Global Leader—Data, Analytics & AI, Carrier

### Leveraging supply chain analytics to keep pace with customer commitments

Operations teams at Carrier rely on supply chain analytics powered by Snowflake to make informed inventory, production, and fulfillment decisions. "The biggest business impact is avoiding changes to promised ship dates and being able to meet our customer commitments," Varghese says.

### Analyzing IoT data for continuous innovation and improvement

Carrier is exploring some interesting use cases with ingestion of IoT/product data into Snowflake to power insights around everything from product innovation opportunities to field services optimization. For example, looking at diagnostic codes from the product to predict potential failure/system lockout or to help service technicians diagnose lockouts.

### Huge increase in appetite for analytics across the organization

Architecting on Snowflake helps Carrier's data analytics team to run fast on enterprise data projects and deliver value early and often. Rapidly realizing value and realizing it early and often has led to a huge increase in the appetite for analytics at Carrier. "My team tripled in size in the last two years—and that's on the back of all the value delivered to the organization. We've done five years of work in the last two years. A big reason for being able to do so is the ease of finding the right skill sets for Snowflake, combined with the ease of development on a platform like Snowflake," Varghese says.

“**My analytics team is best known for the speed at which we're able to operate and create business value.**”

—BINU VARGHESE,  
Global Leader—Data, Analytics & AI, Carrier

## FUTURE:

### Supporting analytics democratization and more value through data science

Continuing to deliver on additional data-driven use cases, supporting the ease of data discovery, and promoting analytics democratization are high on the Carrier data team's agenda.

According to Varghese, "As we double down on data science and look at more external data sets, Snowflake Marketplace will be a great enabler."

## ABOUT SNOWFLAKE

Snowflake enables every organization to mobilize their data with Snowflake's Data Cloud. Customers use the Data Cloud to unite siloed data, discover and securely share data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single data experience that spans multiple clouds and geographies. Thousands of customers across many industries, including 510 of the 2022 Forbes Global 2000 (G2K) as of July 31, 2022, use Snowflake Data Cloud to power their businesses.

Learn more at [snowflake.com](https://snowflake.com)