



# 6 WAYS INNOVATIVE COMPANIES USE SNOWFLAKE FOR DATA WAREHOUSING TO ADDRESS BUSINESS CHALLENGES



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# INTRODUCTION

At Snowflake, we find that as companies seek to digitize their operations, moving an increasing amount of functionality to a variety of cloud applications and partners, the need for a centralized data platform has never been greater.

This is especially true as companies aspire to make data-driven decisions across their business, even as they collect and store data from an increasingly wide range of sources. Data warehousing solutions available within data platforms like Snowflake allow for companies to establish both a centralized data repository as well as a mechanism through which queries can be processed and analyses can be conducted at speed and scale. Ideally, the right data warehouse solution enables companies to access a complete, governed set of data and generate key business insights to operate effectively while generating potentially significant cost savings.

In the pages that follow, we explore seven case studies featuring innovative companies that have used Snowflake for data warehousing to address a wide range of common business challenges—and achieved considerable, positive business outcomes as a result.



# #1 COST SAVINGS IN A MULTI-CLOUD WORLD

## THE CHALLENGE

Western Union had data siloed across multiple on-premises data warehouses, which made gaining a comprehensive view of its customers inherently challenging. Plus, as the company's digital money transfer service has grown in recent years, so has its data volume and engineering needs. Over time, simply maintaining these legacy systems became operationally difficult, slowing Western Union's workflow while making the extraction of valuable insights exceedingly difficult.

"Large amounts of data were copied up to five times due to different ingestion processes, which created dissimilarities in the data and questions about mismatched data sets," Western Union's Data Engineering Support Ops Leader, Deepak Murthy, said.

The company eventually decided it needed to consolidate its systems, and compile all of its data in one place.

## SNOWFLAKE'S SOLUTION

Western Union needed to find a platform partner that also could accommodate the company's multiple cloud environments, each with distinct data sets. Turning to Snowflake, the company was able to aggregate data for 150 million customers across retail and digital channels across the globe. Thanks to Snowflake's multi-cluster shared data architecture, Western Union did not have to compromise on its multi-cloud approach. Perhaps most remarkably, this consolidation ultimately cut Western Union's costs for data warehousing in half.

"Snowflake provided the flexibility to pick the best cloud for each use case and replicate data between clouds without additional pipelines," said Western Union's Chief Data Architect & Global Head of Data Engineering, Harveer Singh.

## CUSTOMER SPOTLIGHT

### WesternUnion WU

**HEADQUARTERS** Denver, CO  
**INDUSTRY** Financial Transfers

**WESTERN UNION IMPLEMENTED A MULTI-CLOUD STRATEGY WITH SNOWFLAKE WHILE REDUCING DATA WAREHOUSE COSTS BY 50%.<sup>1</sup>**

By partnering with Snowflake, Western Union's engineers are now able to build and deploy dashboards in days rather than weeks, yielding valuable actionable insights with ease.



# #2 SPEED UP DATA MIGRATIONS WITHOUT SACRIFICING SECURITY OR USABILITY

## THE CHALLENGE

Flex needed to move its on-premise data warehouse to the cloud. The company's existing architecture was highly complex, however, housing over 15,000 objects, including 17 different applications and over 2,000 reports and dashboards. On its face, any migration was likely to be precarious, unless Flex secured the right technology vendor. Further complicating the situation, Flex maintained a larger partner ecosystem, and sharing among those partners with ease was deemed crucial. In short, the company couldn't afford to take risks. "Whatever works in our legacy platform must work" in the new one, said Sudhakar Ramakrishnan, Flex's Director, HR IT.

## SNOWFLAKE'S SOLUTION

Working with Snowflake, Flex set out an aggressive five-month migration timeline. Partnering with Snowflake Professional Services, the company was able to automate much of its migration while reducing manual steps. This was done in part by obtaining direct access to Snowflake's code conversion team and conducting multiple rounds of work sessions. That exercise helped the team prioritize the applications that needed to be replicated upfront. Beyond data migration, Flex also needed to migrate access controls for over 4,000 users. A resident solution architect on Snowflake's professional services team took a hands-on role assisting in this process, saving a significant amount of time.

"It's not a straightforward path," Ramakrishnan said. "It's always a challenge...allow ample time and plan ahead."

## CUSTOMER SPOTLIGHT



**HEADQUARTERS** Singapore  
**INDUSTRY** Supply Chain Logistics

### **FLEX WAS ABLE TO RETIRE ITS ON-PREMISE DATA WAREHOUSE IN FIVE MONTHS<sup>2</sup>**

By partnering with Snowflake, Flex was able to move off their legacy data warehouse in record time for a migration of their scale before renewal.



# #3 BALANCING SPEED, CAPACITY AND SECURITY

## THE CHALLENGE

Morgan Stanley maintains 40,000 databases on behalf of its financial services clients. Like many companies, Morgan Stanley aims to associate its data with business value, while uncovering and eliminating potential waste. Doing so effectively requires a more sophisticated way of handling budgeting.

The company has a self-service tools and optimization mindset, and is adamant about reducing the need for manual processes. Morgan Stanley initially chose Snowflake for its data security and ability to support advanced analytics and data sharing. However, it was also critical that Snowflake could ensure that Morgan Stanley could track and attribute the cost of that data.

## SNOWFLAKE'S SOLUTION

Morgan Stanley began working with Snowflake in 2019. "One of the key things we liked was the separation of computing and storage," said Howard Goldbert, executive director at Morgan Stanley. "And we like to filter all our data without doing much work."

As for the company's specific security needs, Snowflake was able to provide tri-secret encryption: "Our security team just loves this," Goldbert said.

Beyond security, Morgan Stanley was able to gain greater visibility into (and control over) its spending. This was thanks to **Snowflake's pricing model**, which is based primarily on usage: customers are charged only for the storage and computing resources they use and customers have visibility into which divisions use the platform. Morgan Stanley used this data to establish an internal chargeback program, billing usage back to specific lines of business, instead of facing blanket company-wide IT costs.

But perhaps the biggest takeaway was that Morgan Stanley was able to increase performance and reduce costs by 50% by optimizing its computing needs on Snowflake.

## CUSTOMER SPOTLIGHT

# Morgan Stanley

**HEADQUARTERS** New York, NY  
**INDUSTRY** Financial Services

## MORGAN STANLEY IMPROVES PERFORMANCE AND TRACKS VALUE WITH A CHARGEBACK PROGRAM<sup>3</sup>

Morgan Stanley tasked Snowflake with providing much larger data warehousing capabilities, while maintaining the highest security standards. The result was a 50% improvement as the company scaled, with room for more warehousing capacity as needed.



# #4 FASTER PIPELINES WITH INHERENT FLEXIBILITY

## THE CHALLENGE

Sainsbury's, the UK's second largest retailer, was looking to consolidate its sprawling digital operations in a single, multi-brand platform, in hopes of eliminating data silos. The company's data volume is considerable and growing; each day the retailer ingests 30 to 40 million events in real time, and that number doubles during holiday peaks. As the need to wrangle and make sense of this data has grown, the company recognized a great need for a much simpler architecture.

"There was another team running on a 2XL virtual warehouse. It would take 25 minutes to query a whole table, and they were running multiple queries a day. That's a massive cost," said Sainsbury data engineer Jody Buczynski.

## SNOWFLAKE'S SOLUTION

Sainsbury's tapped a Resident Solutions Architect via Snowflake's Professional Services team. Given Sainsbury's considerable fluctuations in data storage needs, Snowflake recommended the implementation of its **Streams and Tasks** feature (currently in public preview), which enables companies to create custom data pipelines and extract information quickly. The result has been a far more streamlined and efficient data setup. "Our efforts have paid off, and we're doing things we previously didn't think were possible," said Sainsbury's Data Engineering Manager, Joan Fuerte.

## CUSTOMER SPOTLIGHT

# Sainsbury's

**HEADQUARTERS** London, UK  
**INDUSTRY** Retail

### SAINSBURY'S INCREASED THROUGHPUT PER MINUTE 25X<sup>4</sup>

Sainsbury's data teams enjoyed a 72% reduction in job length, along with a 25x increase in throughput per minute. "We can now make decisions about other key parts of the pipeline with much more confidence in what we're doing, and to me, that's really amazing," Buczynski said.



# #5 USING WAREHOUSING TO BALANCE PERFORMANCE AND PRICE

## THE CHALLENGE

In terms of cloud migration, Cisco was already in a relatively mature stage, and was past the point of realizing cost savings simply by moving functionality to the cloud. Still, the company sought to accelerate and broaden its use of powerful analytics, while keeping costs under control. At the same time, its previous on-premise solutions were no longer able to keep up with demand.

“With the business pivoting towards an accelerated data-to-insights cycle and the demand for analytics exploding, it quickly became apparent that some of the existing technologies would not allow us to scale to meet data demands,” said Anupama Rao Senior Manager, Data & Analytics at Cisco.

## SNOWFLAKE’S SOLUTION

To address its scale challenges, Cisco chose to partner with Snowflake, since its platform was designed to handle workloads from existing data warehousing products while incorporating new demands—all with the flexibility to scale capacity up or down as needed.

“Transformation jobs that would take 10 or more hours to run are now completed within an hour,” said Rao. To help keep costs in check, Cisco leaned on Snowflake’s pay-per-second pricing model. Over time, they were able to optimize performance further, by employing features such as transient and temporary tables, reducing permanent storage charges and avoiding fail-safe costs. Overall, Cisco optimized performance by 15%.

## CUSTOMER SPOTLIGHT



**HEADQUARTERS** San Jose, CA  
**INDUSTRY** IT Solutions, Enterprise Software

### CISCO OPTIMIZED PERFORMANCE BY 15%<sup>5</sup>

Cisco drove 15% performance optimization overall on Snowflake, while accelerating analytics capabilities. “Platform costs are no longer someone else’s problem, or something you worry about only every few years when planning for capacity,” said Rao. “With the ability to track usage and costs at a granular level by application comes the responsibility to manage costs better.”



# #6 TURNING DATA INTO A NEW REVENUE STREAM

## THE CHALLENGE

The programmatic advertising company OpenX manages one of the industry's largest independent platforms for buying and selling digital advertising across the globe. The company's ad exchange links over 120,000 advertisers and over 130,000 publishers. Transactions via the OpenX platform can deliver ads via the web, mobile devices, and smartTVs, potentially reaching nearly 1 billion consumers globally. As a result, OpenX has access to a large volume of potentially sensitive pricing and transaction data.

The company's ad customers have been demanding as much granular, log-level data as possible to gauge how their campaigns are performing, while the company sought to empower its own in-house data science teams to help make decisions using advanced analytics. As advertisers continued to execute more complex buying strategies, often leaning on spreadsheets containing millions of rows of data, OpenX's ability to serve them was becoming slow and costly. "We wanted to be faster, smarter, and run a leaner platform," OpenX's VP, Buyer Development, Joseph Leichman.

## SNOWFLAKE'S SOLUTION

For the launch of OpenX's log-level data product, Bidding Intelligence, the company leveraged the Snowflake Marketplace, which offered a multi-cluster shared data architecture as well as affordable cloud rates. As a result, OpenX's customers have been able to better make use of the company's business intelligence tools and raw data to execute more precise ad buys while extracting useful insights. For OpenX, this process became not just about data warehousing but also changed how they thought about data and how they can productize it.

## CUSTOMER SPOTLIGHT



**HEADQUARTERS** Pasadena, CA  
**INDUSTRY** Digital Advertising

### OPENX PRODUCTIZED LOG-LEVEL DATA WITH SNOWFLAKE<sup>6</sup>

Thanks to its Snowflake integration, OpenX can now handle 230 billion ad requests per day. "We needed a scalable, automated, and productized way to deliver data—and now we have it," said Leichman.



# CONCLUSION

The performance and elasticity provided by Snowflake has revolutionized how businesses can access, govern and connect to data that matters. From developing a unified view of the customer to understanding internal costs, companies ranging from Cisco to Sainsbury's increased business value without sacrificing performance or security partnering with Snowflake.

To learn more about how Snowflake can help your business and modernize your data system, [contact us](#).





## 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://www.snowflake.com)



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### CITATIONS

<sup>1</sup> Western Union Achieves Multicloud Strategy With Snowflake While Cutting Data Warehouse Costs 50%

<sup>2</sup> Flex Retired Their On-Prem Data Warehouse In 5 Months | Webinar

<sup>3</sup> Morgan Stanley Tracks Value With Chargeback Program | Summit Session

<sup>4</sup> Sainsbury's Increased Throughput Per Minute 25x | Case Study

<sup>5</sup> Cisco Optimize Performance On Snowflake By 15% | Blog Posts Part 1 & Part 2, Modernization Journey

<sup>6</sup> OpenX Productized Log-Level Data With Snowflake | Case Study