



snowflake

SOLUTION BRIEF

# Snowflake: A new blueprint for the modern data warehouse

## Replacing your legacy database with a scalable and powerful data platform in the cloud

Companies today are struggling under the weight of their legacy data warehouse. These old and inefficient systems were designed for a different era, when data was a side project and access to analytics was limited to the executive team.

Modern companies are placing data analytics in the center of every activity—from applications to operations—and arming teams with the business intelligence and analytics tools they need to understand their businesses. The problem is that legacy data warehouses are fundamentally incapable of scaling to support the volume of data, use cases and overall complexity of modern, data driven

organizations. The ubiquity of semi-structured data has only compounded these challenges.

Snowflake was built for the cloud with a brand new architecture: multi-cluster, shared data. It was designed to handle any data volume at blazing speed and virtually unlimited scale. With Snowflake, you can store, transform and analyze structured and semi-structured data together. You can swiftly spin-up any number of independent virtual compute clusters to support multiple concurrent use cases. Snowflake's data architecture also features an easy to use services layer that helps you manage your data and users effortlessly, with built in security, encryption, data protection and high availability.



### Store all of your data

Store semi-structured data, like JSON, Avro, and XML, alongside your relational data. Query all your data with standard, ACID-compliant SQL and dot notation.



### Support all of your users

Support concurrent use cases with independent virtual warehouses that reference your common data. Scale up or down any virtual warehouse on the fly; turn them off if you don't need them.



### Avoid management

No indexing, tuning or optimization necessary. Snowflake takes care of your data for you so you can focus on enabling your team and delivering data to the business.



### Pay as you go

You pay for what you use, it's as simple as that. Pay a low rate per month for each TB of data, alongside an hourly charge for the data warehouses you utilize.

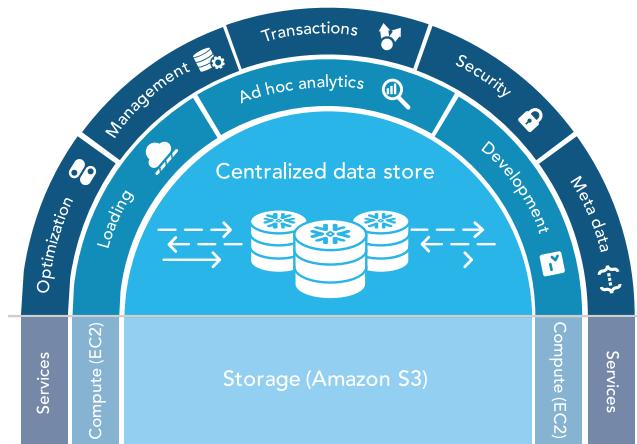


### Use standard SQL

Use standard SQL to query, transform and modify data, or to connect Snowflake with other tools. Modify, drop, undrop, and insert or delete rows like you would with any standard RDBMS.

## A DETAILED LOOK AT SNOWFLAKE

Snowflake was built from the cloud up to support modern data warehousing at any scale. The easy to use services layer manages the entire database—including security, transactions, and optimization. Data is loaded and accessed with independent compute clusters, called virtual warehouses, built on Amazon EC2. Data is stored in a centralized data store on Amazon S3. Since Snowflake is built as a service, all of the infrastructure is managed behind the scenes by Snowflake, leaving you the time to focus on driving value from your modern data warehouse.



**Modern data warehousing at any scale**

## BLACKBOARD CASE STUDY

### Modernizing Blackboard's data platform with Snowflake



**Blackboard**

Blackboard was founded in 1997 to help colleges and universities foster teaching and learning online. As part of this mission, Blackboard has over 14 different and analytics products that they offer to customers. As you can imagine, that comes with some complexity.

In order to handle the volume of data they were dealing with, Blackboard had a Hadoop data lake with a relational data warehouse for some analytical queries. Both systems were slow, inflexible, hard to use, and very expensive. By switching to Snowflake they saw:

- » 16x performance improvement
- » Unified data
- » Simplified data transformation
- » Easy integration with existing tools

To learn more, read the Blackboard case study and more at: [www.snowflake.net/our-customers](http://www.snowflake.net/our-customers)

“Everything that we did left our jaw on the table. ‘Wait—we’ve never done anything like that.’ Or, ‘How did that just run so fast.’ We are getting 16x performance from Snowflake.”

— Jay White, Director of Software Engineering

## SUMMARY

Modern organizations are increasingly turning to the cloud for all of their needs, and data warehousing is one of the most obvious applications. But, it's important to build your data warehouse around modern architecture that was built for the cloud in the first place. Try Snowflake for free today to see how you can effectively support all your data and all of your people, with zero management.