Maximize the Return on Your Data Investment

Overcoming Obstacles to Faster Business Insights

snowflake sigma

TABLE OF CONTENT

Introduction

‘Data-Driven’ is No Longer the Goal. It’s the Requirement.

We’ve long heard that organizations strive to be data-driven. And until now it’s actually been a competitive advantage. In 2020, it’s no longer something to aspire to -- but a requirement for staying relevant. Data volume is only increasing, and if you’re not on the fast track to modernizing your data infrastructure to make data rapidly accessible to every business team, you won’t be getting the full benefit of your data investment.

Forrester reports that data-driven companies grow on average more than 30% annually. But despite universal agreement that data has the power to improve decision making across all parts of an organization, many companies are still struggling to make that a reality and reap the benefits.

According to a study by NewVantage Partners, only **31% of executives** feel they have been able to build a “data-driven culture.” And according to Gartner, **87% of companies** have low BI and analytics maturity. By harnessing a modern cloud data infrastructure, you can accelerate analytics velocity, ROI, and adoption across your organization.

In this eBook, we’ll show you how you can use Snowflake’s cloud data platform and Sigma’s collaborative analytics tool to overcome the issues that have plagued data, IT, and business teams for the last decade. This cloud-first analytics stack enables companies to drive insights faster than ever before—all while lowering cost, reducing IT overhead, and extending governed data access to every employee.

Read on to discover how your company can:

- Create a single source of governed data in Snowflakes’s cloud data warehouse
- Generate real-time business insights at scale 10-100X faster than other data platforms
- Grant data and analytics access to any team in your organization
- Start building a more data-driven culture from within

The common obstacles to faster business insights

A modern cloud analytics strategy can speed up insights and unlock ROI from your data investment. But before you can take advantage of this potential, you need to identify the obstacles ahead of you.

These obstacles are a combination of technical, organizational, and cultural requirements that hold companies back. Fortunately, Snowflake and Sigma have worked with customers like you to identify these obstacles, and offer a tightly-integrated cloud data platform and analytics solution to address them head on.

Obstacle #1: Disjointed Data Sources

According to IDG, the average company collects data from more than 400 data sources. And data volume increases at a staggering 63% each month. This massive, disjointed assemblage of data makes it challenging for business decision makers to grasp the full scope of their organization's data in real time, understand what's happening across business units, and generate actionable insights that inform accurate decisions.

> **The average company collects data from more than 400 data sources.**

Even worse, with so many moving and continuously changing pieces, it becomes increasingly difficult to trust this data if you don't have a centralized source of governed truth that analysts and domain experts can rely on to mine insights.

Obstacle #2: Limited Analytics Velocity

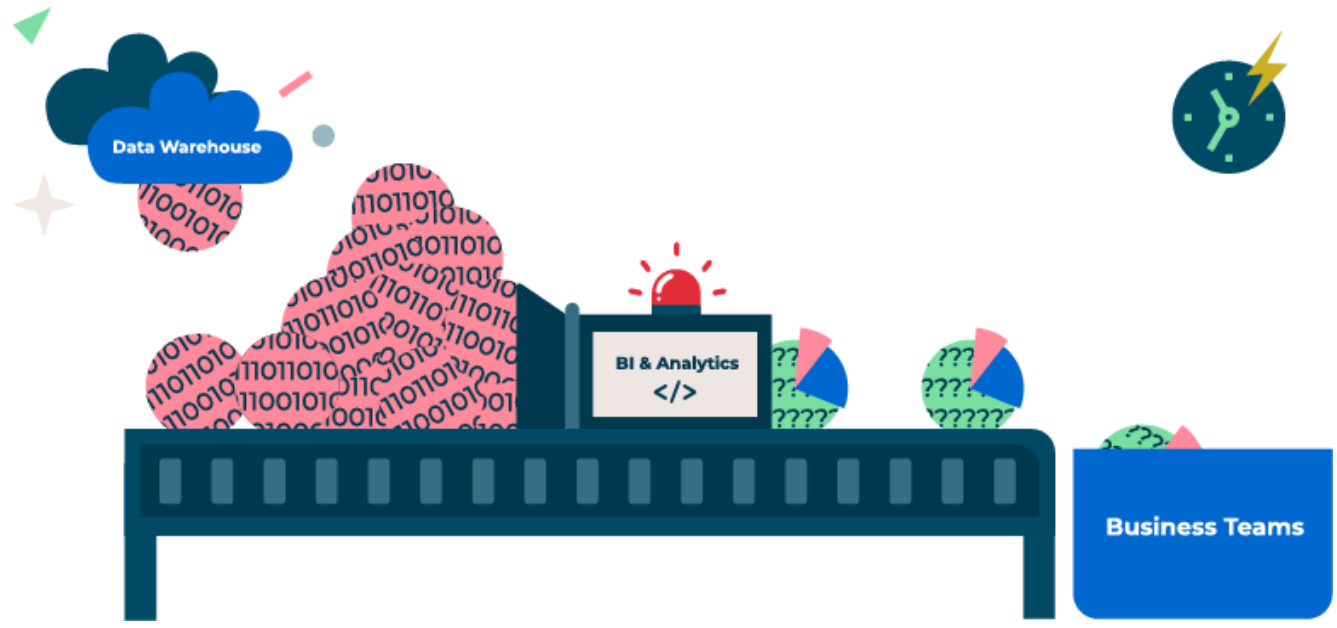
Modern analytics and business intelligence tools rely on data warehouses to execute complex queries from thousands of users. With the massive amounts of data created daily in today's business environment, companies require the ability to build new dashboards, generate reports, and conduct ad-hoc analysis at a moment's notice. With traditional data infrastructures these workloads become bottlenecked and can take hours to complete.

> **Analytical workloads can take hours to complete with traditional data infrastructures.**

The resulting limitation on analytics velocity has ripple effects across your organization. You can only generate mission-critical insights and make decisions as fast as your analytics infrastructure performs. Traditional data warehouses suffer from rigid resource constraints, and cannot complete queries consistently, especially during peak periods and particularly for ad-hoc analyses.

The end result? Users get frustrated with slow queries and forgo using their organizations' analytics tools to make business decisions, never realizing the true potential of their data investments.

Obstacle #3: Lack of Data Access and Reporting Bottlenecks



Domain experts need real-time access to data insight, but are limited by existing analytics solutions. They can't explore or analyze data because they are either restricted from accessing it—forced to go through a data team for answers — or they lack the technical coding skills necessary to ask the right questions.

In a recent study by ResearchScape* we have this:

52% of people are unable to access data to perform their jobs

63% of employees report that they cannot get answers in their required timeframes

38% of people have given up on asking for a piece of data entirely

Obstacle #4: Spreadsheet sprawl

Lack of real-time data access leads employees to seek out alternatives — often in the form of data extracts that can be analyzed in spreadsheet tools. This sprawling, ungoverned network of data is nearly impossible for IT teams to manage and difficult to decipher and prepare for analysis. The resulting shadowy patchwork of data extracts results in outdated, inaccurate, redundant analysis by domain experts, and increases risks of security breaches.

Obstacle #5: Low Analytics Adoption

Despite the billions of dollars invested in big data analytics in the last decade, most analytics investments are not actually providing business value. According to Gartner **80% of analytics** insights will not deliver business outcomes through 2022. What is even more discouraging to learn is that 85% of big data projects fail to move past preliminary stages.

> **80% of analytics insights will not deliver business outcomes through 2022.**

Building a "culture of analytics" isn't easy. That's why the rate of analytics and BI adoption is today still only around 30% of all employees. No matter how much companies try to 'democratize data,' the reality is that frustratingly slow and complex software tools discourage the enthusiasm necessary for broad adoption— and the maximum return on data investment.

The solution: A modern cloud analytics stack

A data-driven business requires a combination of the right technology and the right mindset. Even with the right technology in place, organizations can fail to achieve their objectives if it is not matched with a business culture that enables a thriving curiosity.

The obstacles are common. Many companies have unsuccessfully tried to conquer these problems. Thankfully, the modern cloud analytics stack has reached a point of maturity where these obstacles have become increasingly easy to address for data and IT leaders.

Snowflake and Sigma offer a joint solution that will help you overcome these challenges and ensure a healthy return on your data investment in 2020 and beyond.

Accelerated Data Access

Key Benefits

Lower Storage Costs
With Snowflake you only pay for the compute and storage that you actually use with per second billing and rapid resource elasticity.

Faster Transformation
By moving transformation of extracted data to Snowflake you can leverage the near-infinite compute power of the cloud to speed up transformation.

Data Governance and Security
Reduces the need to hunt for obscure tables, connect to raw data sources, or submit requests for ETL jobs on data lakes. All your data is consistent, secure, and available.

Learn more about Snowflake and Sigma's security certifications

Data is arguably your organization's most valuable asset. But data alone doesn't provide value unless it can be used to derive insights and inform decision-making. As the volume and variety of data continue to increase at higher velocities every year, companies must ask themselves: How do you consistently ingest, store, prepare, and analyze all this data? And how do you enable teams to act on it?

Our customers frequently tell us their analysts spend 80% of their time finding, deciphering, validating, and preparing data from raw sources and sprawling data marts before they can even start analysis. They often wait for data engineers with specialized skills to gather data from raw sources and data lakes, and complete complex joins between data warehouses, data marts, and tables. This wastes valuable time, holds people back from acting on insights in a timely manner, and leads to frustrated and discouraged users across business units.

To get the full picture and eliminate these analytics bottlenecks you must provide data analysts and domain experts with the ability to produce meaningful, accurate business insights fast. The quickest way to do this is to centralize all your data sources in Snowflake.

You start by creating a data pipeline using a modern ELT (extract, load, transform) tool that extracts and loads the data into Snowflake, where custom transformation occurs for each unique analytics task. Unlike traditional ETL (extract, transform, load) pipelines, ELT increases analytics velocity by leveraging the near infinite compute power of Snowflake to perform complex joins and calculations on demand. With cloud ELT and Snowflake, you can streamline data pipelines and create a comprehensive source of information inside the cloud data warehouse — giving analysts and domain experts alike the ability to more easily conduct complex analyses.

With this modern data stack, you can accelerate transformation times dramatically. Snowflake provides isolated resources for data pipelines so that ELT (and ETL) workloads do not compete with analytics queries, and information can be continuously loaded as you ingest streaming data in real time. This means you never suffer from stale data and can always generate the freshest insights.

Accelerated Insights

Key Benefits

Faster Queries
Snowflake's unique architecture provides scalable analytics 10-100X faster than other data warehouses.

Linear scaling
With Snowflake, you can apply 2x the resources to execute queries in 1/2 the time for the same cost.

Seamless Sigma Integration
With Sigma's one-click Snowflake integration, you don't have to spend hours or days configuring your analytics tool to the data warehouse.

Traditional data warehouses and big data platforms have failed to deliver on their fundamental promise: to make it easy to centralize many types of data, enable rapid analytics, and deliver reliable insights to every employee.

Snowflake was created to help organizations of all sizes break free from the limitations of these conventional software solutions. Its patented multi-cluster shared data architecture delivers a cloud data platform that easily and securely enables a wide variety of workloads.

The Snowflake platform quickly loads, integrates, and analyzes all types of structured and semi-structured data inside a unified repository that seamlessly operates across clouds and across regions, while supporting the following workloads and applications:

Only a unique multi-cluster architecture that works with any cloud delivers a host of powerful services to enable a number of modern use cases and workloads

If you have ever tried to run a query during peak times, such as the end of the quarter or a Monday morning, you know how long it can take to get your answer. Snowflake has eliminated this bottleneck so that you can get your answers quickly and get back to work.

By switching to Snowflake's dedicated virtual warehouse, you can enable every team and every workload to query the same shared data concurrently, without contention. This means your dashboards, reports, and ad-hoc analytics load in just seconds, even during the busiest times.

Accelerated Adoption and ROI

Key Benefits

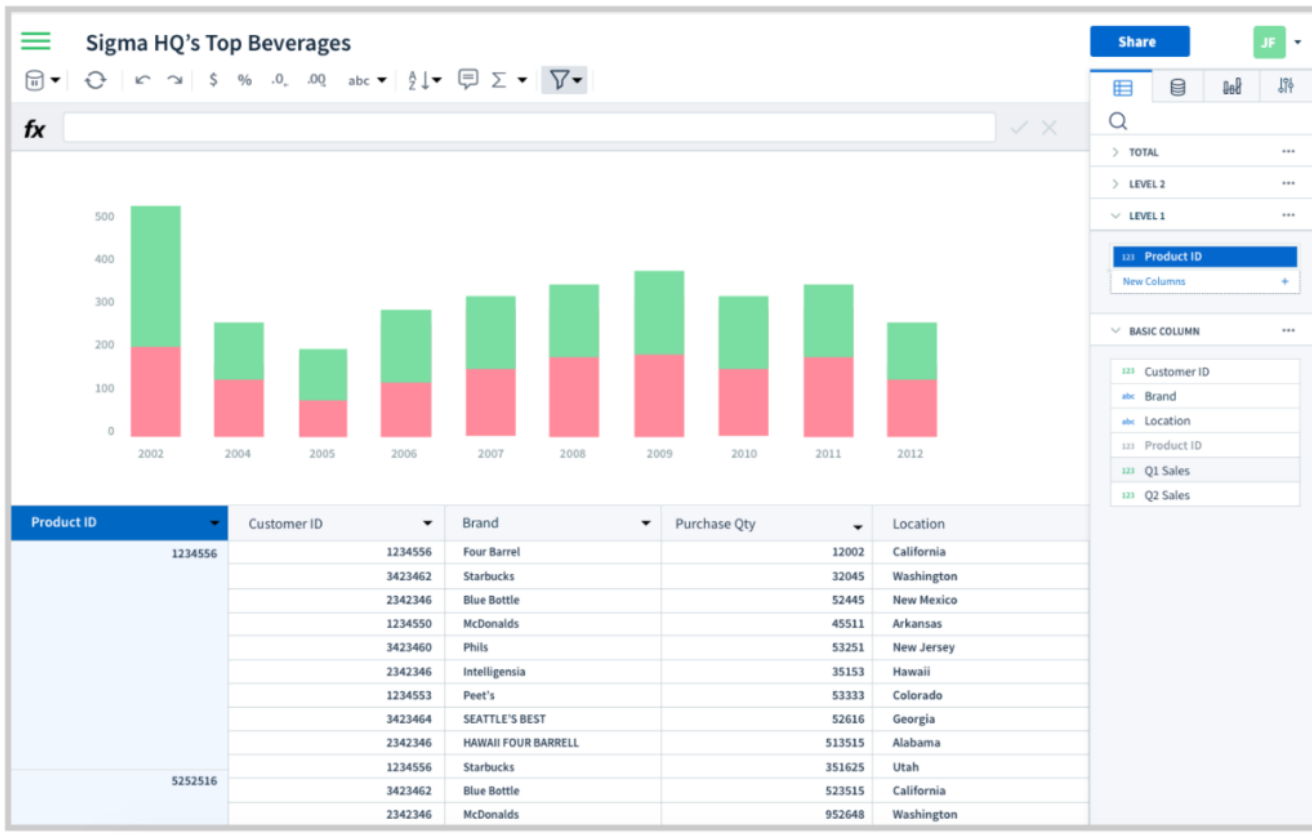
Accelerated ROI
Realize the full potential of your analytics investment in days, not months. Sigma makes set up easy so you can start exploring data on day one.

Broader Data Access
Remove barriers and BI bottlenecks with Sigma's familiar, no-code necessary spreadsheet interface. Anyone can ask deeper, more meaningful questions of their data.

Increased Data Literacy
By opening up your data warehouse to domain experts across the organization you can increase data literacy and start to build a more data-driven culture.

You know the importance of a data-driven, insight-armed company. And with Snowflake you can now centralize your data and overcome the common issues that have made it so complicated to store large volumes and varieties of data and compute complex analytical queries. But how do you take full advantage of Snowflake's unique architecture to get those analytical insights quickly into the hands of every decision maker? That's where Sigma's cloud analytics solution comes into play.

Sigma was designed to help companies realize the full benefits of the cloud data warehouse and drive faster analytics adoption across every business team. It takes a more collaborative approach to analytics than other solutions you may have worked with in the past. Instead of making business teams rely on analysts to provide insights, it puts the power in the hands of everyone through a familiar spreadsheet-like interface that doesn't require SQL to ask the tough questions of your data.



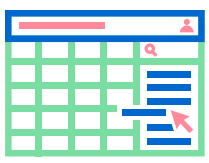
Product ID	Customer ID	Brand	Purchase Qty	Location
1234556	1234556	Four Barrel	12002	California
	3423462	Starbucks	32045	Washington
	2342346	Blue Bottle	52445	New Mexico
	1234550	McDonalds	45511	Arkansas
	3423460	Phils	53251	New Jersey
	2342346	Intelligensia	35153	Hawaii
	1234553	Peet's	53333	Colorado
	3423464	SEATTLE'S BEST	52616	Georgia
	2342346	HAWAII FOUR BARRELL	513515	Alabama
	1234556	Starbucks	351625	Utah
5252516	3423462	Blue Bottle	523515	California
	2342346	McDonalds	952648	Washington

This new approach eliminates the analytical bottlenecks that naturally occur when business teams request ad-hoc reports day-in and day-out from the data team. With Sigma, if a salesperson, marketer, or any other domain expert has questions, they can explore endorsed data directly in the warehouse and generate shareable visualizations, reports, and dashboards themselves.

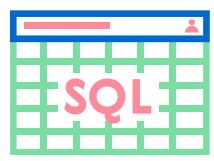
Collaborative workspaces and worksheets can be passed on for further analyses, so you don't suffer from spreadsheet sprawl, and have the ability to build on each other's work over time. And since Sigma remains connected to your Snowflake data warehouse at all times, you know data and dashboards are fresh and accurate when it's time to make data-driven decisions. Most importantly, your data never leaves the cloud, meaning it's always secure, governed, and off local PCs.

Collaborative workspaces and worksheets can be passed on for further analyses, so you don't suffer from spreadsheet sprawl—building on each other's work over time. And since Sigma remains connected to your Snowflake data warehouse at all times, you know data and dashboards are fresh and accurate when it's time to make data-driven decisions. Most importantly, your data never leaves the cloud, meaning it's always secure, governed, and off local PCs.

Meet Sigma



Visual SQL Functionality
Get the power of SQL without writing code. From groups to window functions, it's all in the UI



SQL Runner
Not ready to give up SQL? Start in the SQL Runner, then share the results. It's the best of both worlds.

Charts
Get a visual read on your data and uncover insights faster with one of Sigma's charts, graphs, or maps.

Search
Find the data you need quickly in Sigma or Snowflake. Quick search and filters help narrow down the results.

[Explore Sigma's Features>]

Sigma's interface and visual SQL functionality make it possible for anyone to join the data conversation and answer questions. Using common spreadsheet formulas and the Sigma formula bar, domain experts can access powerful SQL without writing code. If users are new to analytics, the Sigma Academy video learning series can get them up to speed quickly, right within the app.

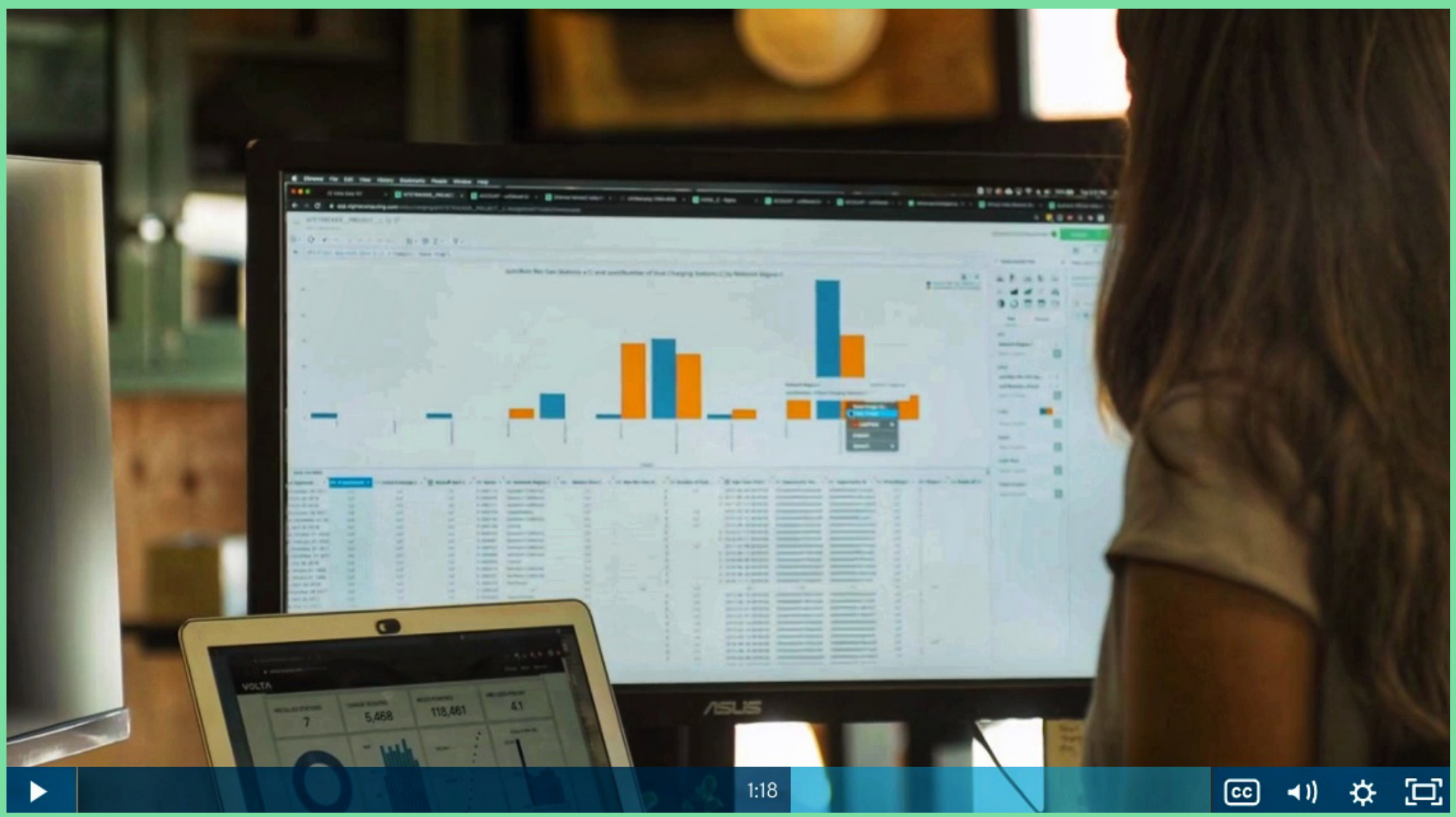
"It writes SQL faster than I do, and with fewer errors."
— Woody Anderson, CTO at Zumper

But Sigma's innovative, no-code necessary interface isn't just a boon for the non-technical; it helps those who can write SQL move faster too. By translating user commands into machine-generated SQL, even the most seasoned analysts can experience a boost in productivity without introducing errors. And because Sigma has a SQL Runner you don't have to throw out all your old code. It's the best of both world's. With this combination, it's not uncommon for analysts to process 400-500 queries a day in Sigma.

By opening up the data warehouse to both the technical and non-technical alike, Sigma helps you realize ROI faster than other analytics solutions—saving time, reducing the learning curve, and increasing collaboration.

Customer Spotlight

Volta Charging Reduces Engineering Time by 90% With Sigma and Snowflake



Volta, the nation's largest free electric vehicle charging network, uses Sigma and Snowflake to provide broader data access to business teams. Watch the video to see how Sigma broke down data barriers and powered a 90% reduction in engineering time required to analyze and report charging station data to their national network of site and marketing partners.

Check out our blog post to learn how Mia Oppelstrup transitioned from being a marketer at Volta to becoming a BI Manager by finding her inner data nerd with Sigma's easy to use analytics interface.

Make the leap into the cloud

If you're thinking of migrating to the cloud for the first time or upgrading your existing cloud infrastructure, you're not alone. A recent report by TDWI Research found that 41% of companies expect to migrate to cloud data warehouses in the near future to take full advantage of the cloud's flexibility, implement better data policies, and enable their organizations with self-service analytics solutions.

A move towards a fully-managed cloud solution makes sense at this stage. Why? The cloud-first data stack is now enterprise-ready, and the constraints of on-prem solutions are stifling growing companies as they look to data to make smarter business decisions.

With the combined power of Snowflake and Sigma you can centralize your data sources, increase data governance and security, expand data access, and unlock rapid analytical insights for any analyst or domain expert in your organization.

A move towards a fully-managed cloud solution makes sense at this stage. Why? The cloud-first data stack is now enterprise ready, and the constraints of on-prem solutions are stifling growing companies as they look to data to make smarter business decisions.

With the combined power of Snowflake and Sigma you can centralize your data sources, increase data governance and security, expand data access, and unlock rapid analytical insights for any analyst or domain expert in your organization.

Take a test drive today

If you're ready to make the leap to the cloud, try Snowflake and Sigma for yourself. We recommend signing up for a free trial and conducting a PoC to see if our joint solution can work for your company.

To learn more about the power of Snowflake and Sigma's combined analytics solution, and to start a proof of concept program, visit www.snowflake.com/technology-partners/sigma/.

This eBook is brought to you by:

Sigma Computing is changing the way organizations use data. Sigma accelerates time to insight for data stored in cloud data warehouses. Powered by the cloud, a spreadsheet-like interface, and SQL under the hood, Sigma is a single source of truth that keeps data accurate, secure, and in context. Headquartered in San Francisco, Sigma is democratizing data and leading the Collaborative Analytics movement. Learn more at www.sigmacomputing.com.

Snowflake's mission is to enable every organization to be data-driven. Its cloud-built data platform makes that possible by delivering instant elasticity, secure data sharing and per-second pricing, across multiple clouds. Snowflake combines the power of data warehousing, the flexibility of big data platforms and the elasticity of the cloud at a fraction of the cost of traditional solutions. Learn more at www.snowflake.com