



# HOW TO IMPROVE DATA VELOCITY AT SCALE

Gain operational advantages by making sure your data stays relevant

## INTRODUCTION

In retail, any technology that improves sales can be an advantage, and today's retailers heavily invest in sales analytics to identify problems, uncover opportunities, and optimize their businesses for continued success. But as organizations grow, adding more customers and more products, analysis becomes challenging. New demands and business requirements tend to outstrip existing technologies, resulting in problems that are hard to address without a new approach.

## CHALLENGES

Typical organizations suffer from a collection of problems with their sales analytics initiatives. These include:

**SSAS:** SQL Server Analysis Services (SSAS) is a commonly used tool for sales analytics because it's able to create multidimensional data structures, aka "cubes," from various data sources. It's challenging to use for many reasons, including performance, the complexity of cube design, and useability with a wide variety of BI and analytics tools.

**Tool Space Fragmentation:** Over time, it's common to have a mix of legacy BI tools, relational databases, and open-source big data tooling. This mix causes a range of problems, including inconsistent features/functionality, different levels of expertise across different analysis, and data that's tied to one tool or another and can't be used elsewhere.

**Multiple Data Sources:** Organizations end up with multiple data warehouse and data lake systems. These store millions of records and are often filled with duplicate data, incomplete data, or outdated data.

**Fragmented Identity and Access Management:** Multiple tools and data sources result in a patchwork of access control. Employees have to submit tickets to do their jobs, causing delays and frustration.

**Data Volume Growth:** As organizations grow, their datasets grow as well. It's not unusual for a large retailer to experience over 100% YoY data growth. Not only is this growth hard to manage, data sets become too large to analyze in time to drive business initiatives unless corners are cut and sales analytics are restricted to easy problems.

**Infrastructure Provisioning:** On-premise infrastructure takes too long to procure, deploy, and setup, delaying any improvements in sales analytics an organization wants to make.

These challenges end up resulting in two fundamental problems.

1. Analysis becomes less and less granular over time. It becomes harder and harder to conduct deep analysis, add additional questions, or even find the data you need.
2. Analysis can't be done quickly enough. The organization needs velocity, and sales analytics has to be agile. For example, analytics have to be quick enough to signal, in minutes, when a feature deploy on their website results in lower conversion rates.

## AtScale Product Overview:

AtScale provides the premier platform for data architecture modernization. AtScale connects you to live data using one set of semantics without having to move any data. Leveraging AtScale's Autonomous Data Engineering™, query performance is improved by order of magnitude. AtScale inherits native security and provides additional governance and security controls to enable self-service analytics with consistency, safety and control. AtScale's Intelligent Data Virtualization™ and intuitive data modeling enables access to new data sources and platforms without ETL and or needing to call in data engineering.



## WHAT'S THE BEST WAY FORWARD?

To move past these challenges and problems, organizations need to simplify the way analysts access data. Some basic requirements for the solution include:

1. Providing easy access to any data source in the enterprise, whether data lake or data warehouse. Data has to flow from sources to applications, certainly sales analytics tools, but for consistency's sake, also data science and business applications.
2. Ensuring that every tool has access to every record, regardless of location. Relying on extracts or a single data set is a recipe for inaccurate decision making.
3. Streamlining identity and access management – endlessly waiting for access to a data warehouse isn't acceptable.
4. Offering self service tooling that offers uniform and equal access to any BI tool that needs it.
5. Being massively scalable without provisioning delays or performance slowdowns to accommodate rapid data growth.

To look at it another way, there just needs to be a single source of the truth that can encompass massive data stores and many data stores. With this one source of data, organizations can accelerate analysis without technology and process impediments. Any tool can access any record, all the records can be used, and analysis can be deeper and faster than ever.

What's the best single source of data? It's AtScale.

## ATSCALE

### What is it?

AtScale helps organizations deliver better sales analytics velocity and granularity. It's a powerful OLAP tool for virtualizing data sources without data movement, and it's used the Global 2000 to make million dollar decisions that drive better data velocity and granularity.

It serves as an engine that accelerates analysis by providing a connection between all data lakes and data warehouses on the one hand, and all business intelligence tools, AI/ML tools, and applications on the other hand.

### How do analysts rely on AtScale to improve the velocity and granularity of sales analytics?

AtScale powers data virtualization. We give organizations a way to virtualize any data source (data lake or data warehouse, on-premise or in the cloud). They can create a virtual cube, without data movement, that serves the organization as a multi-source spanning universal semantic layer for consistent analysis over time.

AtScale powers fast analytics at scale. Organizations that choose AtScale have a tool that powers live connections to any data source with accelerated performance. Analysts now have a way to access more data, from more sources, use more rows, more quickly, and deliver sales analysis that impact business performance right away. Query times are improved anywhere by 5x to 100x.

AtScale powers self-service data access. Rather than submitting trouble tickets to access a data warehouse or waiting on a data scientist to send an extract, analysts have seamless live data



access to any data set that's connected to AtScale. Instead of dozens of sources, AtScale becomes "the single source of data" for any requirement. Organizations can minimize manual engineering like cube building and ETL. They can also easily add new datasets and quickly add new dimensions.

AtScale powers any tool. Whether someone is using a BI tool, an analytics tool, or others, AtScale powers the virtual cube and business definitions. Direct data access from Excel, Tableau, and other tools lets organizations choose the right tool for the job.

AtScale powers cloud utilization. AtScale works with on-premise data warehouses and data lakes as well as cloud data sources. Organizations that experience delays due to data center provisioning can easily leverage the cloud without disrupting their AtScale virtual cubes.

AtScale powers an alternative to SSAS. With SSAS, there's no agility and often no performance, it takes IT ages to add a dimension or data set and takes minutes to access a data set.. AtScale allows you to do multi-dimensional modeling much faster and offers accelerated access.

## THE BENEFITS

Organizations that use AtScale rapidly migrate away from more complex, traditional approaches because the advantages are clear-cut and immediate. AtScale has been proven, in production environments, to easily replace SSAS with no disruption to operations. One customer used to run 300K queries a month using SSAS, and now runs the same number of queries in AtScale.

AtScale offers anywhere from 2.5-9x improvement of data and analytics ROI. This is a result of AtScale's positive impact on query performance, user concurrency, query compute costs and SQL complexity.

Based on [cloud benchmarks](#), AtScale has an order of magnitude impact on the ROI of each major cloud data warehouse. Customers powering their analysis with AtScale control the costs and complexity of their cloud analytics, maintain a consistent and compliant view of data across the enterprise and force multiply the effectiveness of their data and analytics teams.

With AtScale, forecasts are performed faster and delivered sooner, accelerating operational decision making from days to seconds. They're also higher quality, built on consistent data, even across multiple users and over time. Businesses that use AtScale make smarter decisions faster, which gives them unprecedented opportunities to take advantage of evolving economic conditions.

Learn more about the results enterprises like yours are realizing with AtScale.

## About AtScale

AtScale powers the analysis used by the Global 2000 to make million dollar business decisions. The company's Intelligent Data Virtualization™ platform provides Cloud OLAP, Autonomous Data Engineering™ and a Universal Semantic Layer™ for fast, accurate data-driven business intelligence and machine learning analysis at scale. For more information, visit [www.atscale.com](http://www.atscale.com).