ACTIAN™

Avalanche Real-Time Connected Data Warehouse Solution

Realize immediate cost savings with seamless data ingestion and high-performance analytics

Benefits

Significantly reduce cost with the best price-performance in the industry

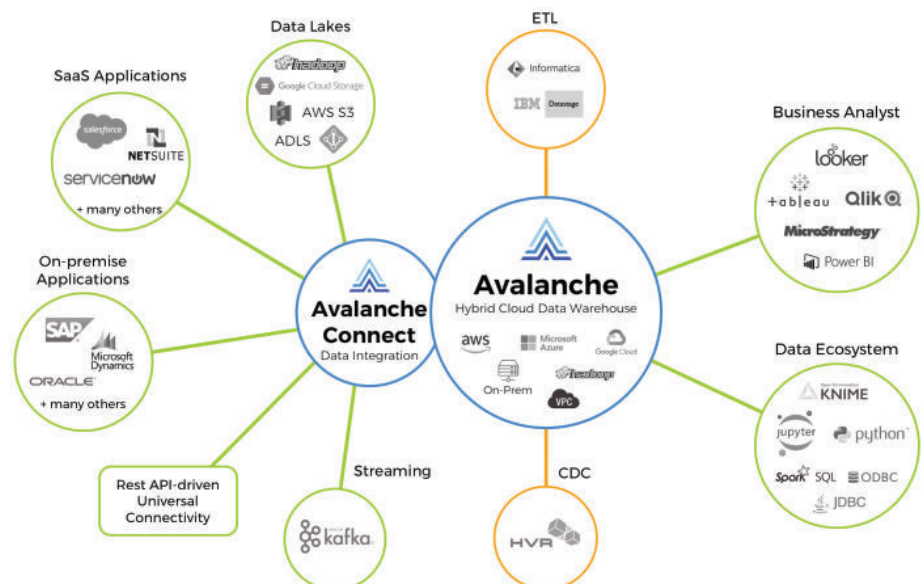Mitigate risk during transition to the cloud with a flexible, hybrid approach

Act in the business moment by operating on the freshest data without performance penalty

In today's challenging economic environment, it is more critical than ever for enterprises to get more value out of their data. This need is fueling a market demand for a new generation of data warehouses that can help enterprises make rapid data-driven decisions while containing cost, mitigating risk, and remaining agile.

Actian's Avalanche Real-Time Connected Data Warehouse solution was designed for these unprecedented times of market uncertainty during which real-time decision-making is critical for survival and success. The Actian solution delivers a set of distinctive capabilities that address unique business needs which go beyond a traditional cloud data warehouse such as blazing fast analytics, real-time data ingestion and a true hybrid architecture that can run in the cloud and on-premise. The result is rapid, impactful decision-making coupled with substantial near-term cost savings.

Introducing Avalanche Real-Time Connected Data Warehouse solution

Actian's Avalanche Real-Time Connected Data Warehouse solution incorporates the features of Actian's enterprise-class DataConnect integration product into its flagship Actian Avalanche hybrid cloud data warehouse, making it the industry's first and only cloud data warehouse to offer integration capabilities built into the product. This combination significantly simplifies and accelerates data warehouse deployment and makes it easier than ever for enterprises to immediately gain value from their distributed data. Further, it virtually eliminates the traditional cost and complexity of having to manage a standalone data integration product in conjunction with an enterprise data warehouse.

The solution is powered by Actian's patented vectorized query engine technology that delivers industry-leading responsiveness and performance. Enterprises can analyze the data at scale and speed in order to power modern analytics use cases that rely on the latest data such as hyper-personalization, real-time inventory management, and fraud analysis.

The Avalanche Real-Time Connected Data Warehouse features the following:

- **Industry-Leading Price Performance:** Delivers up to 20X more throughput compared to other popular cloud data warehouses
- **Zero Performance Penalty Data Updates:** Eliminates performance degradation typically seen in traditional data warehouses and data lakes, so businesses can operate on the freshest data all the time
- **Quick and Easy Data Ingestion:** Rapidly and securely accesses diverse data, including semi-structured and streaming data, using pre-built templates for popular SaaS and on-prem applications such as Salesforce, Oracle, SAP and NetSuite
- **Comprehensive Native Integration Capabilities:** Design, deploy, manage and repair your integrations from a single UI control plane that operates and is managed in the cloud
- **Real-Time Data Pipeline:** Effortlessly incorporate streaming data with Spark and Kafka support to power the most demanding use cases
- **True Hybrid Flexibility:** Deploy and manage on-premise or in multiple clouds on AWS, Azure, Google Cloud, or your own virtual private cloud deployments
- **Hybrid Federated Query Support:** Automates the ability to seamlessly query multiple Avalanche data warehouses, both on-premise and in the cloud, without the need to move or copy data

Get more, pay less with superior price-performance

Since cloud data warehouses are designed for the abundant, boundless resources offered by the cloud, they often do not make the most efficient use of resources. Why make the effort when you can easily spin up a new cluster? This results in unexpectedly high cost for the business.

The Actian solution, however, is powered by the same technology both on-premise and in the cloud. It therefore considers the scarce resources of an on-premise deployment and maximizes the resources available, leading to much more predictable, lower cost while delivering superior performance.

Avalanche exploits the performance features in today's x86 CPUs that other cloud data warehouses and relational databases do not take advantage of. Much faster data processing performance opens up opportunities for more iterations during model tuning by data scientists, more "what if" scenario runs for teams of business analysts trying to determine the best business decisions in real time, and much more. Avalanche delivers support for larger data sets, more users and more complex workloads, as well as the ability to directly query detail data without requiring extensive indexing and materialization of intermediate results.

According to a 2020 GigaOm TPC-H benchmark study, Actian delivers 6X price-performance compared to Snowflake. This means it can perform 6x faster at the same cost or perform equally well but at 6x lower cost.

Improve in-the-moment decision-making with real-time data ingestion and analytics

The Actian solution supports both batch and real-time streaming data. You can capture and understand critical events in real time to improve operational decision-making and response time. Avalanche delivers sub-second analysis at scale while suffering no performance penalty during data updates (alternative solutions typically see 40-60% performance degradation), making it ideally suited to handle the real-time demands of today's data-intensive enterprise.

Reduce cost and complexity with a native integration platform

Actian solution offers over 200 pre-built, extensible connectors and templates to popular SaaS and on-premise applications so that you can bypass the intricate ETL process and quickly move data into Avalanche. It uses a proven integration technology that provides data cleansing, data enrichment, deduplication, and others beyond just data ingestion.

Actian provides a solution designed to support your integration needs of today as well as your operations needs of tomorrow by supporting data sources on different operating environments; supporting one-time, scheduled and real-time data transfers; offering comprehensive security controls; full audit capabilities; and much more.

With Actian's end-to-end solution, you avoid the need to hire extra developers, operations, QA, support, and other personnel to maintain your integrations. Achieve automatic interoperability with a single vendor solution.

Gradually move to the cloud with true hybrid flexibility

Actian solution is a hybrid cloud data warehouse that can be deployed on-premise as well as on AWS, Microsoft Azure, and Google Cloud. Since it operates seamlessly in a hybrid multi-cloud environment with on-premise data, all deployments are compatible so you don't have to relearn the technology or alter your query workloads. If you want to move to the cloud gradually, or keep some data sets on-premise due to compliance requirements or other business restrictions, Actian's hybrid technology ensures minimal disruption to your business during the transition. Its intelligent federated query feature enables a single query to be executed across geographically-dispersed datasets without expensive data movement.
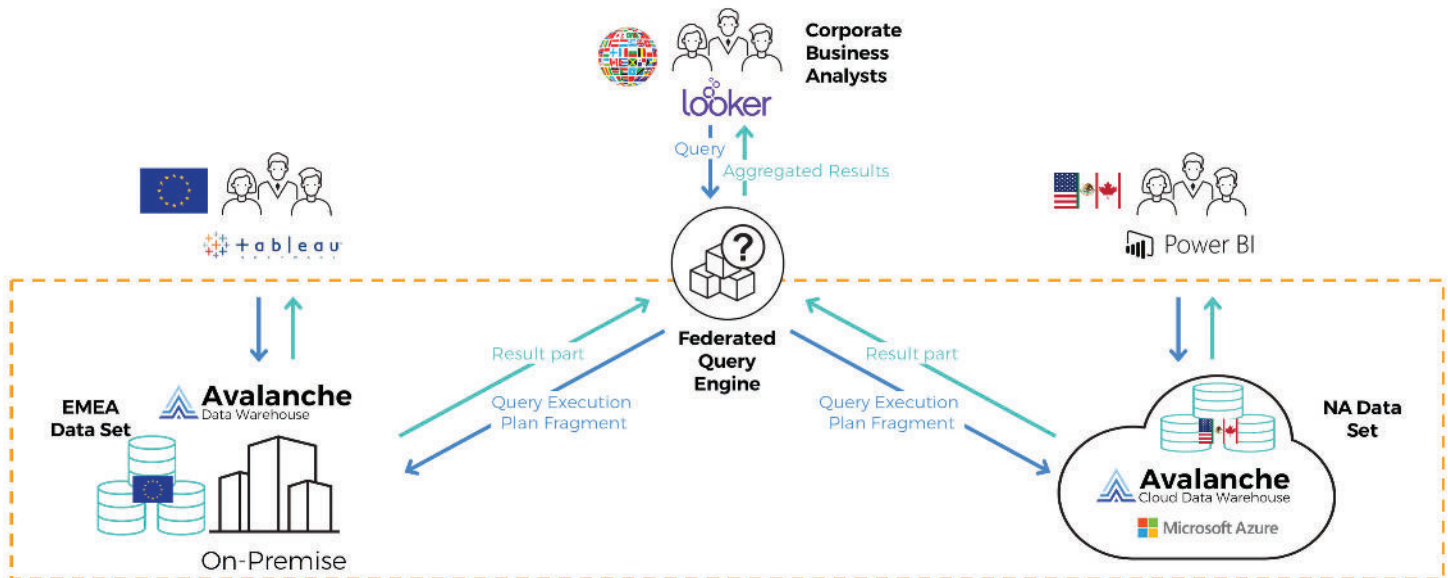

Figure 2. Avalanche enables the corporate business analyst to have a global view of the business by executing queries across both Avalanche on-premise and cloud data warehouses in North American and Europe at the same time without data movement.

Use Case Spotlight: Healthcare Analytics

Avalanche Real-Time Connected Data Warehouse solution enables the discovery of clinical insights and increases operational efficiency by bringing together data from any source into a high-performance data warehouse that can support even the most demanding workloads. Improve medical instrumentation automation and care delivery with real-time decision support across clinical, ambulatory, and areas of specialization.