Enterprise Architect's Guide

Top 4 Strategies for
Automating and Accelerating
Your Data Pipeline

Qlik

New data demands are inspiring new architectures.

The explosion in data, the vast array of new data capabilities and the dramatic increase in data-consumer demands have changed how data needs to be moved, stored, processed and analyzed.

Today's businesses need architecture that scales easily, automates data integration processes and streams data in real time. As a result, more and more organizations are:

- **Investing in and moving data to the cloud**
- **Accelerating and simplifying the data warehouse and data lake lifecycle**
- **Replacing inefficient batch replication processes with real-time data streaming**

New data architectures are creating new challenges.

This new environment has created additional complexity and bottlenecks within IT, because many existing processes and technologies are insufficient. In today's landscape, reliable, real-time data delivery requires:

INTEGRATION

Bringing together increasingly high volumes of data from an increasing array of sources and replicating it to analytics platforms without disrupting production applications

GOVERNANCE

Tracking, maintaining and protecting data at every stage of the lifecycle

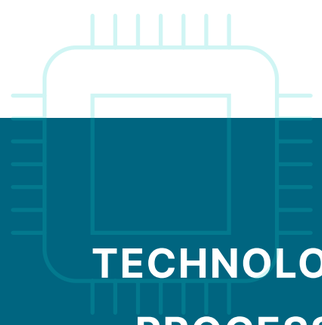
AGILITY

Automating the design and refinement of data warehouses and data lakes while leveraging best practices

A new approach to data integration: DataOps for Analytics.

There’s an emerging strategy that enables a modern, comprehensive approach to meeting today’s data demands: DataOps for Analytics.

Borrowing methods from the DevOps concept, which combines software development and IT operations to improve the velocity, quality, predictability and scale of software development and deployment, DataOps seeks to bring similar improvements with delivering data for analytics. It focuses on the practices, processes and technologies for building and enhancing data pipelines to quickly meet business needs.



DataOps isn’t a product or a software platform; it’s a methodology. Technology is a vital component, but it’s only one component. You’ll also need to rework the operational aspects of your data supply chain and bring your workforce along.

Top 4 strategies for meeting today's integration challenges.

You can meet today's agility and real-time data requirements by leveraging DataOps for Analytics to automate and accelerate your data supply chain. These four strategies get data flowing faster.

1. **Use change data capture** to identify and propogate data changes as they occur

2. **Automate the creation of data warehouses** for the rapid addition of new data sources and the creation of purpose-built data marts

3. **Automate the creation of data lakes** to provide continuously updated, accurate and trusted datasets

4. **Build and employ an enterprise data catalog** to make every new dataset available and accessible

STRATEGY 1

Use change data capture to identify and propogate data changes as they occur.

CAPABILITIES:

Real-time streaming | Replication | Efficient cloud delivery

BENEFITS:

Continuously replicate data by identifying and copying data updates as they take place

Keep users informed about where the data came from, where it's been, and how it's changed along the way

STRATEGY 2

Automate the creation of data warehouses for the rapid addition of new data sources and purpose-built data marts.

CAPABILITIES:

Automated ETL generation | Self-service marts | Cloud optimization

BENEFITS:

Empower data delivery teams to easily convert raw data into a governed, analytics-aware resource

Give unique business units or functions faster access to relevant data within the data warehouse, speeding time-to-insight in a cost-effective way

STRATEGY 3

Automate the creation of data lakes to provide continuously updated, accurate and trusted datasets.

CAPABILITIES:

Real-time data ingestion | Automated, continuous refinement

Trusted, enterprise-ready data

BENEFITS:

- Quickly and easily create high-scale data pipelines
- Remove as much scripting as possible, adapting multistage data processing without coding
- Close the “last mile” by provisioning analytics-ready data in real time

STRATEGY 4

Build and employ an enterprise data catalog to make every new dataset available and accessible.

CAPABILITIES:

Automated profiling and transformation | Data lineage

Sensitive data encryption | On-demand access

BENEFITS:

- Provide enterprise-wide visibility into siloed data sources to make business-ready data available on demand
- Empower users to find, reuse, comment on and share data sets throughout a smart data catalog
- Track data usage and protect, enforce and monitor data access policies throughout the data lifecycle
- Deliver any data to any BI tool or application

THE RESULTS ARE REAL

By 2021, organizations that offer a curated catalog of internal and external data to diverse users will realize **twice the business value** from their data and analytics investments than those that do not.

Gartner, "Augmented Data Catalogs: Now an Enterprise Must-Have for Data and Analytics Leaders," September, 2019. Authored by Ehtisham Zaidi and Guido De Simoni.

Qlik's modern Data Integration Platform.

Closing the gap between relevant data and actionable data.

Business users need to be confident that the data they analyze is accurate, safe and verifiable. Qlik's Data Integration Platform includes a robust set of enterprise-scale quality, governance and collaboration capabilities to vastly accelerate the discovery and availability of real-time, analytics-ready data.

Our modern data integration platform comprises:

1. **Real-time data streaming with change data capture**
   Extend enterprise data into live streams to enable modern analytics and microservices with a simple, real-time and universal solution

2. **Agile data warehouse automation**
   Quickly design, build, deploy and manage purpose-built data warehouses without manual coding

3. **Managed data lake creation**
   Automate complex ingestion and transformation processes to provide continuously updated and analytics-ready data lakes

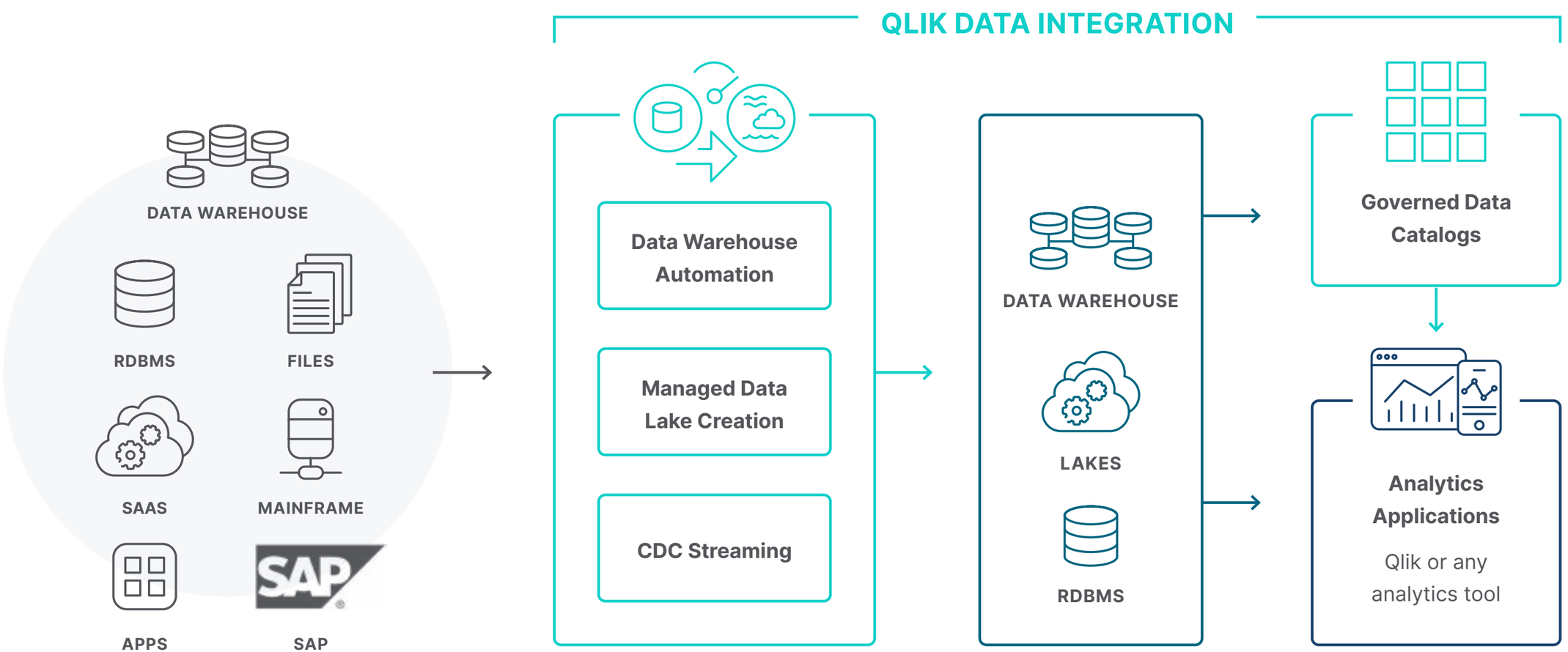
4. **A smart, integrated data catalog – for trusted, governed data**
   Give data consumers a reliable, intuitive way to access, find, understand and self-provision data

BUILT TO MOVE DATA INTO ANY BI PLATFORM

Qlik's Data Integration Platform is architected for today's data landscape. It works with any and all data consumers, including BI offerings from Qlik, Tableau, Microsoft and others.

Qlik’s platform at a glance.

Stream all your organization’s data, from any source, through automated and governed pipelines to the analytics applications of your choice. Fast.



Accelerate business value with data.

Use data integration to propel your business forward.

The ultimate goal of any data project is to help the business innovate, transform, succeed, compete and grow. At Qlik, we're committed to business value acceleration, supporting you across the entire data pipeline so you can take raw data from any source and transform it into insights that matter.

Ready to get more data to more users, faster? Take a closer look at our Data Integration Platform.

Learn More

About Qlik

Qlik transforms complex data landscapes into actionable insights, driving strategic business outcomes. Serving over 40,000 global customers, our portfolio leverages advanced, enterprise-grade AI/ML and pervasive data quality. We excel in data integration and governance, offering comprehensive solutions that work with diverse data sources. Intuitive and real-time analytics from Qlik uncover hidden patterns, empowering teams to address complex challenges and seize new opportunities. Our AI/ML tools, both practical and scalable, lead to better decisions, faster. As strategic partners, our platform-agnostic technology and expertise make our customers more competitive.

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