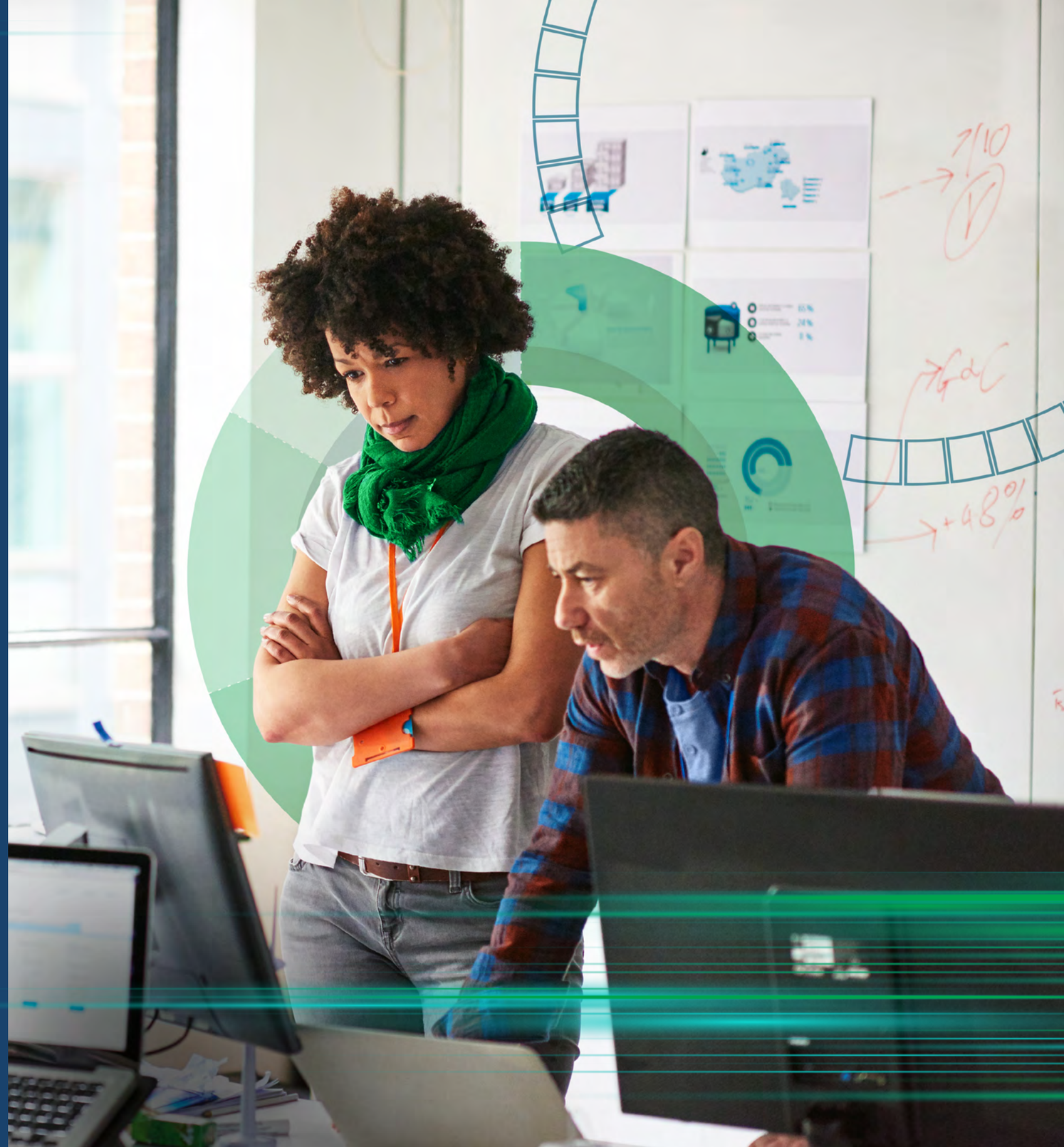
Qlik

Quick Guide:

Unlocking Mainframe Data for Modern Cloud Uses

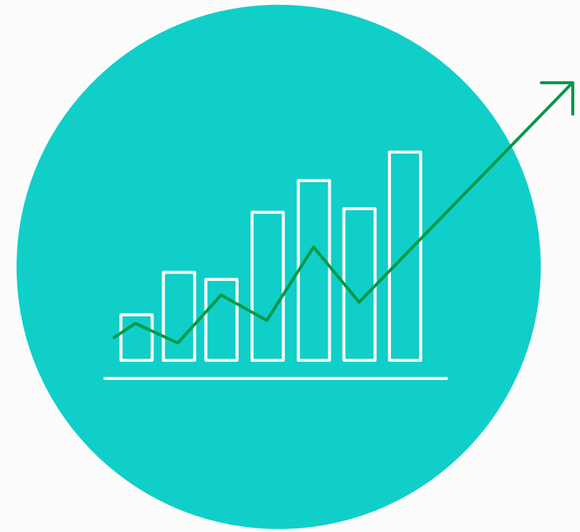


The mainframe computer: a workhorse for business.

For decades, enterprises have relied on mainframe computers to deliver mission-critical applications. Government agencies, healthcare organizations and businesses of all kinds – particularly in finance and insurance – use mainframes to manage some of their most sensitive and valuable data. And because of their high performance, reliability and security, mainframes aren't going anywhere soon. In fact, the market for them is growing.

But unlocking insights from these workhorses comes at a cost. Forward-thinking enterprises are looking for ways to extract more value from their mainframe data while offloading MIPS processing and costs to less expensive platforms, especially to the cloud. With modern data integration approaches, these organizations are effectively leveraging this data for data warehouse automation, data lake creation, operations monitoring and new business cases like modern app development and data monetization.

A GROWING MARKET



> "The global mainframe market size was valued at **$2,094M** in 2017 and is projected to reach **$2,907M** by 2025, with a CAGR of 4.3% from 2018 to 2025."

Global Mainframe Market: Opportunities and Forecasts, 2018 – 2025, Allied Market Research

Why modernize your mainframe?

Many businesses are now implementing mainframe modernization, a strategy that enables them to take advantage of the latest innovations in the cloud without disrupting business-critical mainframe processing and applications.

Forward-thinking businesses want to leverage today's most advanced analytics platforms as well as affordable, scalable cloud services, and modernizing their legacy systems is essential for doing that. For example, providing a 360-degree view of customers to the front-line support team requires real-time data replication from the mainframe and other source systems. And traditional batch-oriented integration approaches won't meet those needs.

of IT decision-makers report that the inflexibility of the mainframe limits the IT department's ability to innovate.

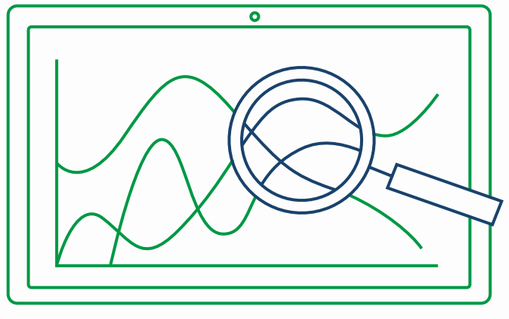
ComputerWeekly, 10/29/19

The top 3 mainframe data integration challenges.

When organizations attempt to integrate their mainframe data into a broader data environment, they run into a few common roadblocks.

	THE PROCESS	THE PROBLEM
1	**Batch File Transfer** Scheduled scipts or mainframe jobs extract data from the mainframe and write the results into flat files. These large files must be tranferred over the network and transformed inot their target data structure, such as a data lake.	**Expired Data** With inherent delays in the process, data isn't delivered in real time - and it quickly becomes irrelevant for any application that requires fresh data. Today, that's most of them.
2	**Direct Database Query** Most businesses looking to integrate mainframes into a broader analytical environment tend to take a brute-force approach, querying directly into the mainframe system to access the data they need.	**High Costs + Network Downtime** Each new query eats up more instructions, adding to the expensive Millions of instructions Per Second (MIPS) monthly bill. Additionally, whenever a query is made, the system is disrupted.
3	**Real-Time Data Streaming** To stream in real time, data has to be moved immediately whenever a change occurs.	**High Degree of Labor** Without the correct data integration architecture, it takes a significant amount of manual tuning to support the board, deep and fast analysis businesses need.

Change data capture for real-time data streaming.



Qlik CDC Streaming is a software solution that provides an efficient, cost-effective and low-impact way to accelerate the integration of mainframe data sources – including DB2 z/OS, IMS and VSAM – with a wide range of destinations in modern analytics ecosystems. Using log-based change data capture, Qlik enables the continuous replication of data without the need for custom development.

As a result, you can:

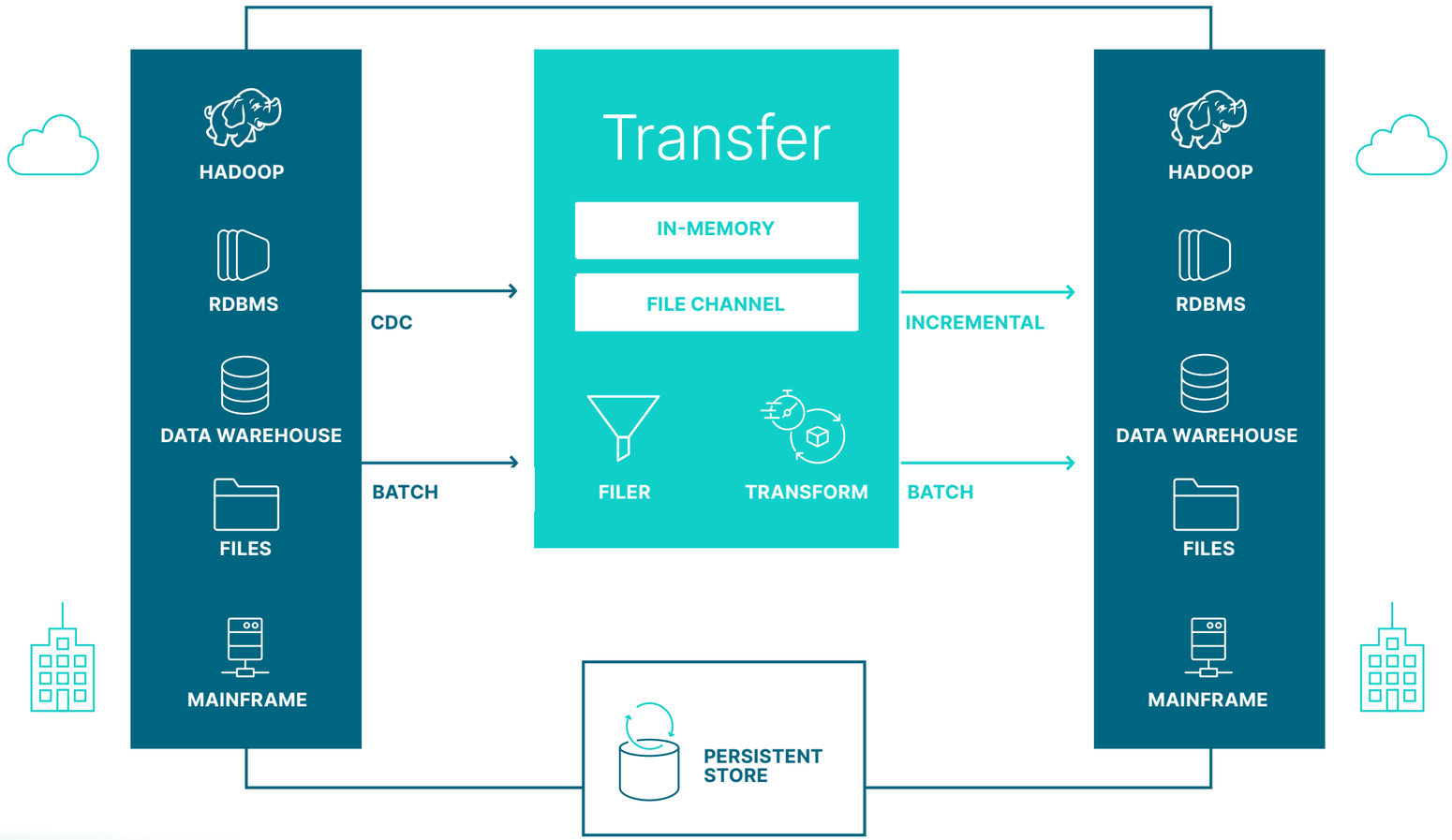
Make the most current data accessible.
Because it continuously replicates and automatically propagates data to one or more targets, Qlik CDC Streaming eliminates the need to move data in periodic batches. All data is kept coordinated and made accessible in real time on other platforms.

Keep systems up and costs down.
Rather than performing repeated brute-force queries into the data, Qlik CDC Streaming supplies log-based change data capture and log streaming. This unique, non-invasive and agentless approach to capturing changes has a low impact on production systems, and it doesn't incur the hefty MIPS price tag.

Greatly reduce manual labor.
Qlik CDC Streaming can be easily installed and configured using an intuitive, wizard-based GUI, with no extra coding required. So mainframe administrators and data engineers can much more quickly deliver application-ready mainframe data across the business.

Qlik CDC Streaming at a glance.

Qlik CDC Streaming doesn't liberate data from mainframes alone; it replicates data from many sources to many targets, so you can create more modern applications, mobile apps and microservices – quickly.



CUSTOMER SPOTLIGHT

Mainframe data replication to AWS at Vanguard.

CHALLENGE

Investment company Vanguard manages $5.6 trillion of assets for more than 30 million investors. They wanted to leverage AWS for building new applications and analytics solutions that have real-time data coming from large mainframe systems.

SOLUTION

After adopting Qlik®, Vanguard is now able to replicate mainframe data in near real-time into AWS, making it available to application developers and analytics users – and in the process, offloading queries and reducing costs.

RESULTS

Qlik CDC Streaming handles Vanguard's diverse workloads and data volumes, moving over 20 million rows of data hourly (on average) and in excess of 60 million rows of data hourly during peak demand. Vanguard's **adoption of the cloud data platform increased by 200% year-on-year, and compute costs were reduced by 30%.**

CUSTOMER SPOTLIGHT

Delivering a near-real-time view of customer data at Swiss Life.

CHALLENGE

Swiss Life France, a major provider of insurance and wealth management, set out to aggregate customer data from the company's back-end systems into a central search-and-retrieve data index. The goal was to create a consistent multi-channel view of customers that could be leveraged by portals, mobile applications, analytics and more.

SOLUTION

With Qlik Replicate,® Swiss Life moves data in near-real time from its DB2/z mainframe to an Oracle database, which feeds an Elasticsearch search engine that serves requests from portals and multi-device applications. This solution eliminated the need for significant development work to modify back-end applications, and it currently enables Swiss Life's multi-channel and digital strategies.

RESULTS

Customers can now access information about their policies via the web portal or their mobile application. **Distributors can access the same information** through their dedicated portal. And soon, the project will enable access to the same information for service agents.

"Without Qlik, we couldn't have done the project, since it would have been too costly for us in terms of development work. We would have been forced to give up on our real-time data propagation requirement."

Christian Phan-Trong, Architecture Director

SwissLife

Vanguard®

CUSTOMER SPOTLIGHT

A single source of truth for data at Zurich.

CHALLENGE

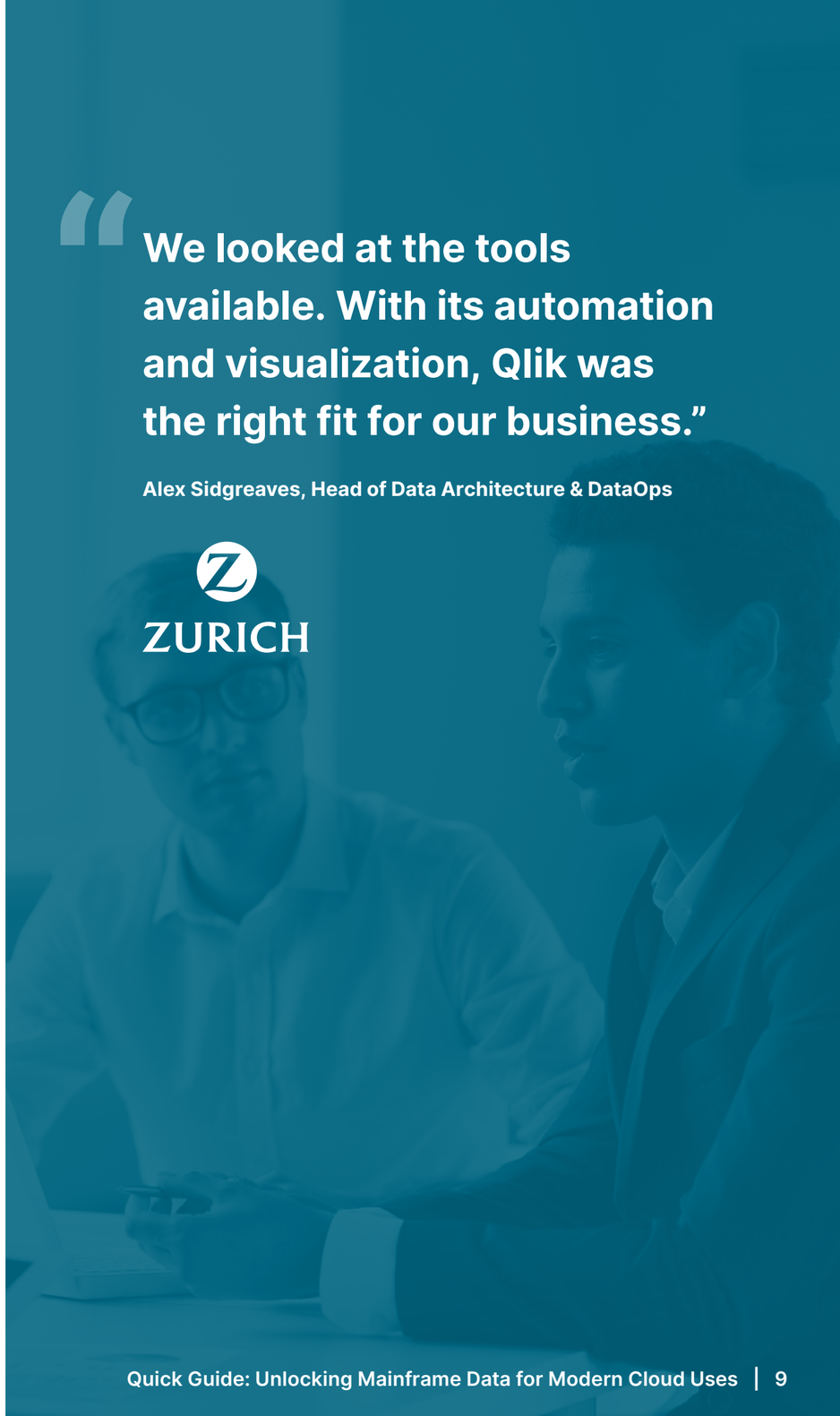
Following several acquisitions and as a result of its manual reporting processes, insurance giant Zurich was struggling to obtain accurate data. The company needed to turn data into an asset and increase speed-to-market.

SOLUTION

Zurich overhauled its systems to create a central data store, using Qlik CDC Streaming to feed legacy mainframe data to a Guidewire Platform and Qlik Data Warehouse Automation to build data warehouses quickly and without coding. Qlik Sense® is used for data visualization, with NPrinting providing automated reporting.

RESULTS

With Qlik, Zurich **has achieved a single source of data truth,** dramatically boosted efficiency and reduced the number of reports by 75%.



Introducing the Qlik Data Integration Platform.

As you modernize your data environment, CDC replication is one piece of the puzzle – or more specifically, one piece of the pipeline. At Qlik, we've built an end-to-end Data Integration Platform that accelerates the discovery and availability of analytics-ready data by automating not only real-time data streaming but also data refinement, cataloging and publishing, too.

REAL-TIME DATA STREAMING

Extend enterprise data into live streams to enable modern analytics and microservices.

MANAGED DATA LAKE CREATION

Automate complex ingestion and transformation processes to provide analytics-ready data lakes.

AGILE DATA WAREHOUSE AUTOMATION

Quickly design, build, deploy and manage purpose-built data warehouses without manual coding.

ENTERPRISE DATA CATALOG

Enable users across your business to easily find, prepare and share analytics-ready data.

All elements of the Qlik Data Integration Platform work together, enabling you to establish real-time, automated data pipelines that stream from transactional systems, warehouses or data lakes to create trusted, actionable data on demand throughout your organization.

Modernize your mainframe data to modernize your business.

The foundation for modern, efficient data pipelines, Qlik Data Integration provides automated, real-time and universal data integration across all major data architecture, on-premises and in the cloud. It moves data at high speed from source to target. It's simply and easily managed through a graphical UI that completely automates end-to-end replication. And it gives you global visibility into and centralized control of data replication across your distributed, hybrid environment.

WHERE TO GO NEXT

Unlock the value of your data in your legacy sources. Enable major data integration projects. Minimize the impact to your production systems. Eliminate direct queries. Save time. Reduce the back-office IT workload. And support your line of business teams with the flexibility they need, all while maintaining data security.

Curious to learn more? **Review more technical details in the white paper. Mainframe to Modernization.**

Download White Paper

Or dive right in and try Qlik CDC Streaming for yourself.

Free Trial

Qlik

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.

qlik.com

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