

WHITEPAPER

Unleash Your SAP Data

Enable Real-Time
Integration for Analytics
with Qlik Replicate



INTRODUCTION

It's no secret that SAP ERP and CRM applications run in the world's largest enterprises. What may be surprising, however, is how these companies benefit from making live production SAP data seamlessly available – wherever needed – across diverse platforms and hybrid environments. Real-time data integration for analytics supports fast decision-making, leading to improved operations, optimized customer service, and competitive advantage.



So, why doesn't every company embrace the opportunity to use new analytic platforms – big data and cloud – by delivering live SAP data to platforms such as Hadoop, Kafka, and the cloud, in real time? For one, SAP systems can be challenging to integrate because they're structurally cumbersome.

They are often comprised of tens of thousands of tables with complex relationships and proprietary data formats that make data inaccessible outside of SAP applications. This complexity means that integrating data for analytics can be cumbersome, time consuming and costly.

That's why enterprises running on SAP turn to Qlik®. Our software helps organizations like yours make SAP data universally available across analytics platforms, on-premises and in the cloud. Our Qlik Replicate™ software (formerly Attunity Replicate) delivers simple, real-time change data capture (CDC) replication so you can meet rapidly evolving business requirements in an agile way. It's universal SAP data availability for your analytics initiatives.

Key Requirements

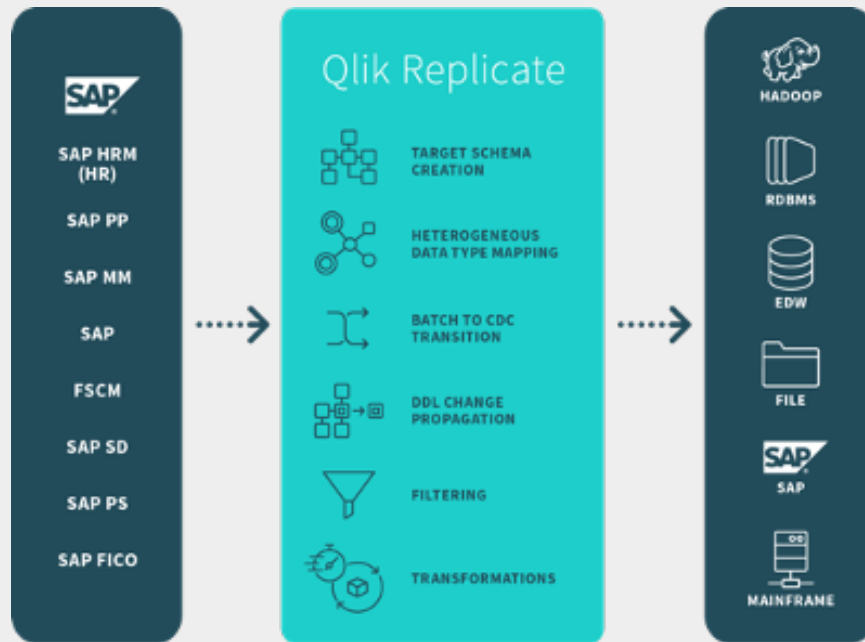
As your enterprise looks to adopt a modern data platform to complement your SAP applications and address compelling new analytics use cases, you'll want a solution with these capabilities:

- ✓ Broad support for replicating documents, transactions, and business data from any standard SAP module or industry-specific module.
- ✓ Universal access with flexibility to deliver SAP data – making data seamlessly accessible across data warehouses, Hadoop, and other platforms, on-premises or in the cloud.
- ✓ Real-time data integration that supports analytics with live production copies.
- ✓ Fast decoding of SAP data through a common data model for business use.
- ✓ Low data integration project cost and complexity.
- ✓ Minimal-to-zero production impact.

Not all solutions can meet these requirements, and without the right tools and processes, replicating SAP data to Hadoop, cloud, or other platforms can become too manual, costly, and time consuming to take on, especially given the complexity of the source SAP data model. It's too hard to make sense of SAP data by simply examining physical database instances, independent of the applications, without the transparency of crucial business rules.

Replicating SAP data to new platforms requires new techniques and modern software that integrates with SAP tables and understands complicated relationships and levels of abstraction.





Use Cases

You can enhance the value of your SAP data by analyzing it anytime, everywhere – in Hadoop data lakes, cloud platforms, operational data stores, and real-time data warehouses.



Live SAP Data Ingest for Hadoop Data Lakes and Kafka

Hadoop data lakes are quickly becoming integral to enterprise data management infrastructures. They are a popular way to store diverse types and large volumes of raw data until they're needed for analytics and business intelligence use. Integrating SAP data with other data types, for example social media or IoT, within a data lake can yield powerful new insights about your customers and operations. Data lakes often ingest data from hundreds or even thousands of sources in SAP and other enterprise environments.



Live SAP Data Ingest and Migration for Cloud Analytics

Resource elasticity, usage-based payment models, and ease of use make the cloud an ideal platform for many analytics initiatives. Popular cloud options for data warehouses and Hadoop environments include Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform. Secure, low-latency transfer of SAP data across opens new possibilities for efficient and innovative analytics.



Load heterogeneous data into SAP HANA with confidence

To get the most value out of analytic investments, enterprises need to be able to feed other data sources into SAP HANA and keep the data updated in real-time. Qlik Replicate expands the value of SAP HANA by delivering automated and continuous data ingestion from a broad range of enterprise data sources, mainframe, and Cloud databases. As a certified solution for SAP HANA, you can manage your SAP data confidently knowing that Qlik Replicate has passed SAP's testing process with the latest release of SAP HANA.



Enabling Self-Service for Real-Time Business Intelligence

Replicating SAP data in real time into new business intelligence (BI) platforms empowers less-technical, business-oriented users to easily run analytics on SAP and related data sets. Replication performs the necessary data transformation, freeing up business users and analysts to more easily run queries and test analytics theories.



Real-Time Data Warehousing with SAP Application Data

Real-time analytics help your enterprise compete more effectively in today's marketplace, for example by capitalizing on immediate customer opportunities or improving operational efficiency. This requires your data warehouse to have timely data available based on a continuous and efficient data acquisition process. Change data capture (CDC) software consolidates SAP data across numerous business operations for real-time analytics initiatives.

Best Practices

Enterprises finding success with SAP data for BI and analytics have these best practices in common:



Deep SAP Integration

The ability to make SAP data usable for new analytics platforms by using software that understands sophisticated, underlying SAP structures and converting the data formats to new formats for the target. For example, SAP text and descriptions are applied to target table and column names to simplify user comprehension of target objects.



Real-Time Data Integration

Recognition that real-time integration is essential for certain analytics use cases, such as location-based customer offers, fraud detection, and predictive maintenance. And these organizations use CDC software that enables this by continuously updating targets with data transfers that maximize throughput and minimize latency.



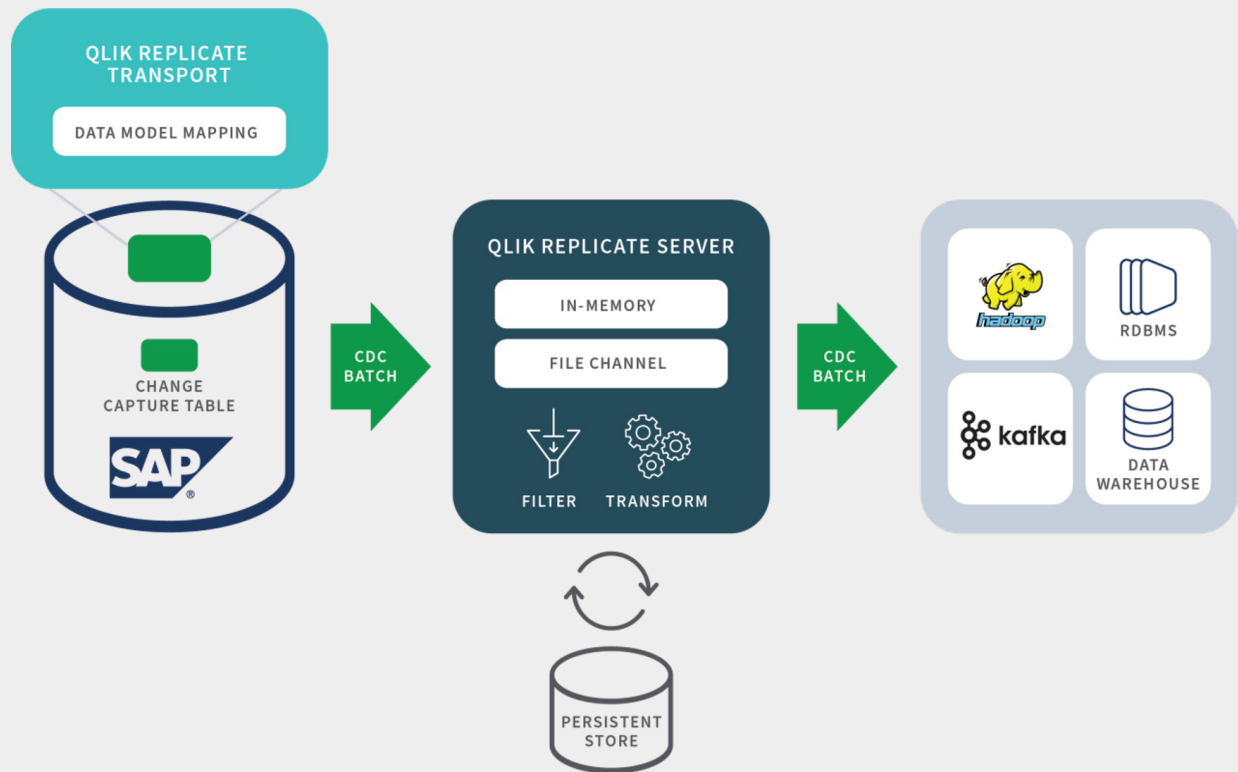
Automation

These organizations automate manual processes wherever possible using effective data replication processes that automate the setup and execution of all major tasks, including bulk loads, CDC, target database/table creation, and DDL change replication.



Secure and High-Speed Data Transfer to the Cloud

When sending data into, across, and out of cloud architectures, these organizations seek high-speed transfer mechanisms that compress, encrypt, and transmit data in parallel streams.



Enable Universal SAP Data Availability for Your Analytics

Our Qlik Replicate for SAP solution, formerly Attunity Replicate for SAP, quickly and easily replicates SAP documents, objects, transactions, and system data to any major database, data warehouse, or Hadoop platform, on-premises or in the cloud.



Easy Access to SAP Data

The Qlik solution delivers an intuitive, automated replication interface that supports all core SAP business applications, such as ERP (ECC), HR, CRM, industry-specific solutions, and custom SAP modules. It decodes complex SAP data structures with metadata for replication. It offers automated selection of SAP data with metadata in SAP pool, clustered, custom, and indexed tables. Selected SAP tables are transformed and materialize as physical tables in the replication target. You can then access SAP data through BI reports that run directly against replicated data with logical naming.



Low Administrative Overhead

With the Qlik solution, you don't need to make programmatic or interface changes when the underlying SAP structures change – during upgrades or development activities.



Broad Heterogeneous Target Support

Our Qlik Replicate for SAP solution supports all major databases, data warehouses, mainframes, and Hadoop targets – both on-premises and in the cloud. It supports integrated data warehouses by allowing universal accessibility to live SAP data for Hadoop, Kafka, data lakes, and the cloud. You can realize new analytics value by analyzing SAP data in native target schemas such as Hive, Postgres, and Amazon Redshift.



Real-Time Integration with CDC Technology

With the Qlik solution, your organization can continuously update targets with data from SAP systems and other sources, enabling real-time insights.



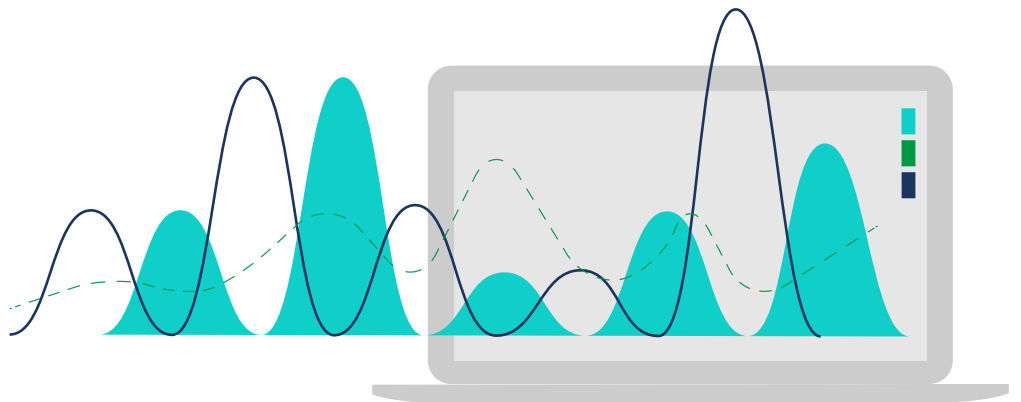
Secure and High-Speed Cloud Data Transfer

Our solution compresses, encrypts, and transfers data in parallel streams into, across, and out of cloud architectures.



Low Performance Impact

By identifying changes within the source logs, Qlik's CDC technology protects the performance and integrity of production transactions. Our CDC process copies updates in the source data or metadata as they occur and applies them to the target endpoint in real time. Qlik Replicate for SAP supports log-based and query-based capture, as well as transactional CDC, batch CDC, data warehouse ingest-merge, and message-encoded CDC. No storage is required on the SAP source side because all transactions and processing are done in-memory via Remote Function Calls.



Qlik Replicate Support for SAP Environments



Applications

ERP/ERP Core Components

CRM

SRM

Global Trade System

Master Data Governance



SAP Versions

Primarily SAP ECC 6.0 +
all EhP levels

Also ECC 5.0 4.7 Enterprise
and 4.6C



Databases

Oracle

SQL Server

DB2

Now you can address compelling new analytics use cases for SAP data with Qlik Replicate for SAP. You gain the ability to give more of your users and systems rapid access to data, freeing your teams from relying so heavily on your IT and development organizations. Qlik Replicate for SAP reduces the cost of data management and cuts your IT costs with end-to-end automation of the replication process, while also improving decision support and boosting agility.

[LEARN MORE](#)

About Qlik

Qlik's vision is a data-literate world, one where everyone can use data to improve decision-making and solve their most challenging problems. Only Qlik offers end-to-end, real-time data integration and analytics solutions that help organizations access and transform all their data into value. Qlik helps companies lead with data to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

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