

DATA INTEGRATION

Real-Time Data for DoD

Qlik Data Integration for Data
Platforms

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How the DoD makes decisions is changing. Historical transaction reporting and static batch data analyses are giving way to predictive data science, streaming analytics, machine learning (ML), and artificial intelligence (AI). The DoD must embrace these new paradigms for more informed, real-time decisions to impact business, operations, and mission performance.

DOD Data platforms are reaching such levels of data volume and complexity that traditional integration tools no longer suffice. The scale, speed, and low latency necessary to satisfy the DOD mission require a more innovative integration solution.



That solution is Qlik Data Integration. The foundation for modern, efficient data pipelines, Qlik Data Integration provides automated, real-time, and universal data integration across all major data lakes, streaming systems, databases, data warehouses, and mainframe systems and helps automate the creation of new data warehouses and lakes both on-premises and in the cloud. Leveraging Qlik Data Integration, the Department can deliver more data, in real time, and in analytic ready form.

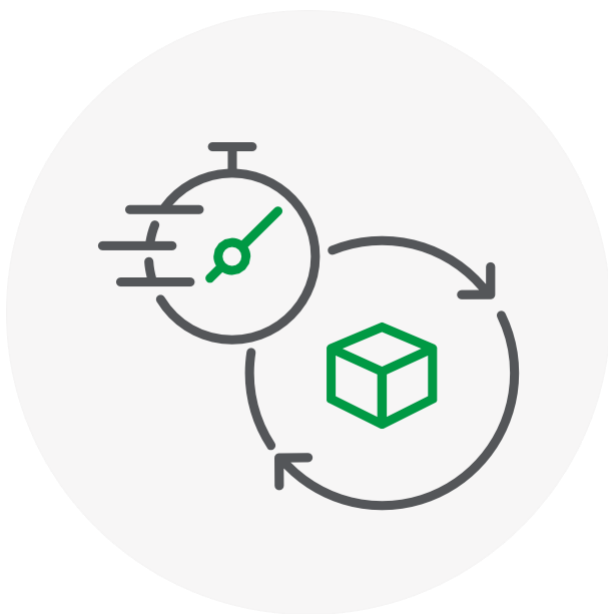
Qlik Data Integration enables agile analytics all while reducing time, effort, and cost. One example of this is with a large DoD ERP customer who shortened their real-time analytics delivery schedule from 6 months to 1 week due to Qlik's no-code, drag and drop UI. That same DoD customer also saw a 10x decrease in time for processing financial transactions compared to the ERP vendor's native toolset.

Qlik Data Integration is different. It streams data at high speed and in real time from source to target, with each data pipeline configured and monitored in an intuitive, no-code, drag-and-drop web interface. This completely automates accelerates end-to-end replication. With Qlik Data Integration's streamlined and agentless configuration, administrators and data architects can quickly set up, control, and monitor bulk loads and ongoing real-time streams across the entire data platform environment.

Qlik Replicate

Qlik Replicate continuously automates CDC from multiple data sources to the cloud landing zone. Our solution helps you avoid the heavy lifting associated with manually extracting data, transferring it via API/script, then chopping, staging, and importing it.

Qlik Replicate supports all major source and target systems for data replication. This includes major DoD ERP systems, such as Army Logistics Modernization Program (LMP), Navy Enterprise Resource Planning (ERP), Army General Fund Enterprise Business System (GFEBS), Defense Enterprise Accounting and Management System (DEAMS), and many others. Years of innovation, optimization, and our strategic partnerships ensure our solution integrates data across all these platforms seamlessly.



Qlik Compose

Qlik Compose automates the design, implementation, and updates of the data that Replicate streams into Data Lakes and Warehouses. It minimizes the existing manual, error-prone design processes of data modeling, ETL coding, and scripting. Deploying Qlik Compose speeds your analytics projects, helps you achieve greater agility, reduces your risk, and allows the DoD to realize the potential of their cloud investment more fully.

Qlik Replicate

Easy to Use and Automated

An intuitive, web-based console makes it simple to configure, control, and monitor replication tasks across all sources and targets without needing a deep understanding of the environment or coding requirements. Execute initial data loads, then transition automatically to continuous CDC for instant inserts, updates, and deletes. Qlik Replicate automatically generates target database structures based on metadata definitions in the source schema. Any DDL changes made to that source schema, such as table/column additions or changes to data types, can be replicated dynamically to the target.

Intelligent Management and Control

Qlik Enterprise Manager™ (QEM) empowers you to design, execute, and monitor thousands of Qlik Replicate tasks across distributed data center and cloud environments. Scale easily and monitor data flow in real time through KPIs and alerts. Customize views by grouping, searching, filtering, and drilling down into key streaming tasks to control complex replication activities across your enterprise. And when needed, leverage comprehensive analytics for capacity planning and performance monitoring, or integrate with microservices architectures through REST and .NET APIs. Using the QEM console you can configure security allowing only specific personnel to see the sources, targets, and replication tasks for their specific environments. QEM uses Single Sign-on through Windows Authentication, allowing users to open the QEM Console without providing additional authentication.

Zero-footprint Architecture

Get agentless data replication for mainstream database systems with our solution. DBA's do not need to install onerous replication agents on any source, nor is there any need for target agents. Qlik Replicate uses platform-native utilities, remote change log scanners, and secured client connections to eliminate intrusive agents, triggers, or timestamps on sources and targets — dramatically reducing administrative burden and improving source production performance.

Instant Updates

Our adaptable, enterprise-class Qlik Replicate CDC gives platform owners options. Use it to copy and deliver transactions sequentially — in the same order in which they were applied to the source. Create optimized batches of changes to further increase throughput and decrease pipeline latency. And try streaming data from a single source to multiple targets including Kafka variants, object stores, Data Lakes, Data Warehouses, and traditional databases leveraging Replicate's fan-out option.

Secure and High-speed Cloud Data Transfer

Replicate compresses, encrypts, and transfers data in parallel streams into, across and out of cloud architectures, including Amazon WebServices, Microsoft Azure and Google cloud. Users also can now feed data from any source to cloud.

Qlik Compose for Data Lakes

DOD users need confidence that their data is accurate, updated, and trusted for analysis. Qlik Compose automates the data management process in Data Lakes. It gives data consumers powerful tools to find, understand, and use data based on their unique needs and security credentials. It also allows data engineers to quickly add new sources and ensure success across the entire pipeline — from real-time data ingest to refinement, provisioning, and governance. Data protection features are easy to administer, even in very large settings with many users, data sources, or complex infrastructure.



Real-time data streams

Change Data Capture (CDC) moves data to the Data Lake — in real time — from the widest variety of heterogeneous databases, data warehouses, and DoD enterprise sources like SAP and Oracle.

- CDC streams
- Universal sources, targets, and platforms
- Enterprise-wide monitoring and control



Trusted, enterprise ready data

Qlik builds a secure, enterprise- scale catalog of all the data in your lake and throughout your organization, no matter where it resides. Business users get a single, go-to data marketplace to find, understand, and use any enterprise data source to gain insights.

- Smart, integrated data catalog
- Security and governance
- IT and business collaboration



Automated and continuous refinement

Qlik standardizes and combines change streams into a single transformation-ready data store in the lake. It automatically merges multi-table and/or multi-sourced data into a flexible format that retains full data history. The result is that data consumers have fast access to trusted data without having to understand the automated structuring behind it.

- Pipeline automation and orchestration
- Resilient and self-healing
- Prepare and provision at scale



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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