Synchronize IBM Z® data to the cloud for modern data architectures

IBM Data Gate delivers simple, ultra-efficient data synchronization of IBM Z data

Highlights

Optimized for simplicity, efficiency, and high throughput

Data co-residency for next generation cloud applications

Improved Db2 for z/OS efficiency and transactional consistency

Unlock the power of mainframe data for AI with IBM watsonx

Mainframe transactional data is the lifeblood of new cloud, analytics, mobile and AI applications. Organizations want to leverage data originating on IBM Z for modern applications that run on non-IBM Z platforms.

IBM Data Gate for watsonx and IBM Data Gate with Cloud Pak for Data® provide a modern hybrid cloud approach for cloud access to data originating on IBM Z. IBM Data Gate for watsonx synchronizes data originating in Db2® for z/OS, IMS® and VSAM data sets to unlock the power of transactional mainframe data for analytics and AI through integration with IBM watsonx.data.

IBM Data Gate with IBM Cloud Pak for Data provides an end-to-end solution to ensure data is synchronized from Db2® for z/OS to Db2 targets optimized on IBM Cloud Pak® for Data. It synchronizes Db2 for z/OS data for hybrid cloud, analytics and AI initiatives with reduced cost and effort. Applications can access a transactionally consistent, synchronized copy of Db2 for z/OS data, hosted by a separate system.

Bring valuable enterprise IBM Z data to your modern enterprise architectures with the IBM Data Gate set of products.

IBM

Transactional data is the definitive source of truth and represents the current state of the business for many organizations. And this high value IBM Z data combined with other data can provide unique predictive value for AI insights.

Optimized for simplicity, efficiency and high throughput
The Data Gate set of products provide a revolutionarily simple, highly optimized, purpose built, unidirectional, resilient, standardized approach for synchronizing data from IBM Z data sources for application access on the cloud.

A zIIP (z Integrated Information Processor) enabled log data provider captures Db2 for z/OS log changes and sends consolidated, encrypted changes to a Data Gate log data processor in Data Gate for watsonx and Data Gate with Cloud Pak for Data. The log data provider is integrated within Db2 for z/OS, requiring only configuration but no additional installation or maintenance.

Data co-residency for next generation cloud applications
Co-locate data originating in Db2 for z/OS with your application to eliminate query latency.

Db2 for z/OS data is a critical source of data for operational applications and can play a foundational role in hybrid data environments.

Data Gate with Cloud Pak for Data can provide cloud-based applications a transactionally consistent, synchronized copy of Db2 for z/OS data.

Improved Db2 for z/OS efficiency and transactional consistency
Reroute resource intensive Db2 for z/OS queries to Data Gate with Cloud Pak for Data. Archive time partitioned tables from enterprise disk to lower-cost cloud storage. Support data fabric access to cached Db2 for z/OS data via a one-click integration with IBM Knowledge Catalog.

Instead of accessing data in the Db2 for z/OS data source directly, an application can access a synchronized copy of Db2 for z/OS data, hosted by a separate system. This target system can be established anywhere Cloud Pak for Data is supported, enabling a wide range of target platforms that include public cloud, on premises, and private cloud deployments.

Data Gate with Cloud Pak for Data provides a unique, patented, integrated protocol to ensure transactionally consistent data between host-based Db2 for z/OS systems and cloud-based applications.

97%

When synchronizing Db2 for z/OS data sources, up to 97% of system processing can be off-loaded to zIIP specialty processors.[1]

Unlock the power of mainframe data for AI with IBM watsonx

Transactional data is the definitive source of truth and represents the current state of the business for many organizations. This high value IBM Z data combined with other lakehouse data can provide unique predictive value for AI insights. But traditional approaches to accessing and using this data are often costly, complex and time consuming.

IBM Data Gate for watsonx revolutionizes the way organizations synchronize transactional data originating on IBM Z through a simple, purpose-built, integrated synchronization approach to bring this data into a lakehouse infrastructure for analysis and AI model building and execution.
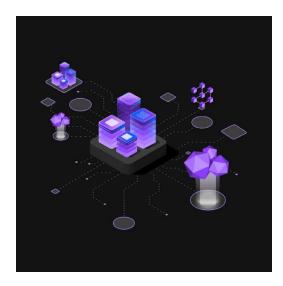
A Data Gate product for specific enterprise data challenges

With the IBM Data Gate set of products, you can drive greater value from your existing IBM Z investment and keep pace with new cloud, analytics, mobile and AI initiatives with reduced effort and cost. It can help you reduce the complexity associated with delivering data for these new initiatives.

Data Gate for watsonx and Data Gate with Cloud Pak for Data share the same high-performance integrated synchronization protocol but serve different purposes. The alternatives available to your organization accommodate modern application infrastructure needs:

- Data Gate for watsonx synchronizes the most important IBM Z data sources including Db2 for z/OS, VSAM and IMS to the Iceberg open-source data table format in watsonx.data so organizations can efficiently incorporate the most up-to date, critical enterprise transactional data for analysis and for building and using AI models.

- Data Gate and Cloud Pak for Data delivers an up-to-date copy of Db2 for z/OS data hosted in IBM Cloud Pak for Data on supported platforms for access by cloud-based applications. It redirects Db2 for z/OS analytical queries and archives Db2 data in the cloud.

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1. According to IBM internal testing, when synchronizing Db2 for z/OS data sources, up to 97% of system processing can be off-loaded to zIIP specialty processors (z Integrated Information Processors). This does not include initial load/unload processing. Based on IBM testing of integrated synchronization processing in 2024.
Hardware and software configuration:

6 z/16 GCPs and 2 ZIIPs	z/OS 03.01.00
80G Memory	Db2 for z/OS v12
10Gbit network to Accelerator	M4002-010 (IIAS 1-rack)

Build compelling, data-rich cloud applications based on mainframe data to differentiate your organization

Mainframe data is crucial

Data from mainframe operational applications is critical to cloud, analytics, mobile and AI applications. Organizations are differentiating themselves from their competitors by building compelling, data-rich, cloud applications based on this data.

IBM Data Gate for watsonx and IBM Data Gate with Cloud Pak for Data can help you reduce the cost and complexity of hybrid cloud data delivery. Instead of building and maintaining costly custom code, this product suite can simplify your development efforts.

Why IBM?

IBM is trusted to manage companies most mission-critical data and applications. Our experience of innovation in enterprise data solutions includes market-making database solutions and enterprise ready-AI.

We enable our clients to run solutions in any cloud or on-premises environment and believe that our client's data solely belongs to them.

To learn more about Data Gate for watsonx and Data Gate with Cloud Pak for Data contact your IBM representative or IBM Business Partner, or visit ibm.com/products/data-gate.