IBM Data Gate for Confluent

Turn trusted IBM Z transactions into real-time business action

Highlights

IBM Data Gate for Confluent

Organizations are increasingly leveraging AI, analytics, automation, and digital experiences to improve customer engagement, optimize operations, and accelerate business growth. These initiatives depend on timely access to business data that reflects what is happening across the enterprise.

Much of this critical operational data resides in Db2 for z/OS on IBM Z, the platform behind many of the world's most important transactions across industries including banking, insurance, retail, transportation, healthcare, and government. As enterprises embrace event-driven architectures and modern data platforms, extending these business transactions beyond the database system creates new opportunities to drive faster decisions, improve customer experiences, and enable intelligent automation.

IBM Data Gate for Confluent bridges IBM Z and Confluent environments, transforming Db2 for z/OS transactions into continuous real-time events that can be consumed across the enterprise. Built on IBM Data Gate synchronization technology and integrated with Confluent's data streaming, processing and governance platform, the solution captures transactional changes and streams them directly into Kafka topics through a Kafka Connect source connector. Using open Debezium-compatible event formats, IBM Data Gate for Confluent enables seamless integration with analytics platforms, AI pipelines, microservices, cloud services, and event-driven applications. By publishing transactional data once as reusable event streams, organizations can efficiently support multiple consumers and business use cases—including fraud detection, customer alerts, claims processing, disruption management, AI-driven insights, analytics, automation, and modern application development—using a single, scalable streaming foundation.

Figure 1. Streaming trusted IBM Z transactions in real time to power AI, analytics, automation, and modern event-driven applications

Business Benefits

- **Unlock Real-Time Business Insights:** Provide analytics platforms, dashboards, and operational systems with continuous access to trusted IBM Z data.
- **Accelerate AI and Automation:** Enable AI models, intelligent assistants, and automation workflows to act on live business events instead of historical data extracts.
- **Simplify Enterprise Data Distribution:** Replace multiple custom integrations with a scalable publish-and-subscribe architecture that supports many downstream consumers.
- **Reduce Integration Complexity:** Modernize data movement by reducing dependence on batch pipelines, custom synchronization tools, and point-to-point integrations.
- **Extend the Value of IBM Z Data:** Make trusted transactional data available where it creates the most business value while keeping database on IBM Z.

Built for Real-World Scenarios

Real-time decisions are critical across industries. IBM Data Gate for Confluent transforms trusted Db2 for z/OS transactions into real-time event streams, enabling AI, analytics, automation, and modern event-driven applications.

❑ **Financial Services**
- Real-time fraud detection
- Customer transaction alerts
- Risk monitoring and compliance reporting
- Event-driven banking applications

❑ **Transportation**
- Disruption detection and response
- Passenger re-accommodation workflows
- Operational event monitoring
- Improved customer communication

❑ **Insurance**
- Real-time claims processing
- Policy event notifications
- AI-driven risk assessment
- Operational workflow automation

❑ **Retail**
- Inventory and order visibility
- Real-time promotions and recommendations
- Omnichannel customer experiences
- Fulfillment and supply chain optimization

❑ **Healthcare**
- Enable real-time patient and operational data processing
- Stream events into monitoring and analytics systems
- Support operational continuity for critical healthcare workflows

❑ **Government**
- Stream citizen service events across departments
- Improve responsiveness of benefits and tax systems
- Enable real-time operational visibility and governance

❑ **Other industries**
- Enable event-driven modernization initiatives
- Support hybrid cloud and micro-services architectures
- Accelerate enterprise AI adoption with live trusted data

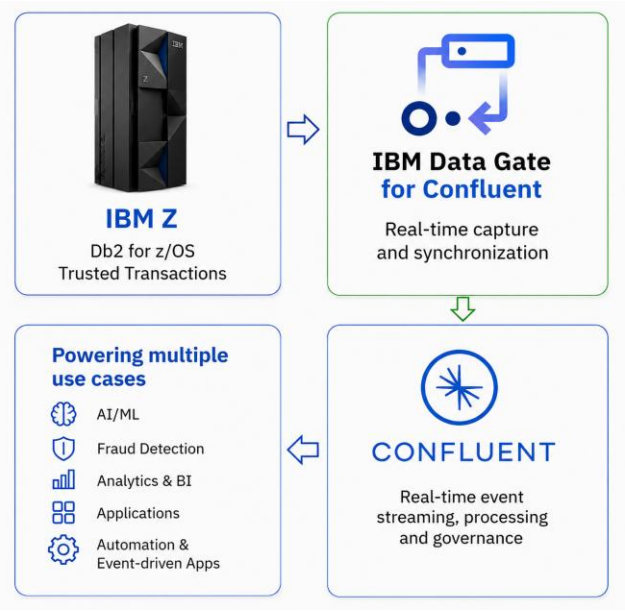

Figure 2. IBM Data Gate for Confluent

Key Capabilities

Native Integration with Confluent and Kafka

- **Kafka Connect source connector for Confluent Platform** — Enables seamless streaming of Db2 for z/OS changes directly into Confluent environments.
- **Native integration with Kafka ecosystems** — Allows event streams to be consumed by Kafka applications, services, and downstream platforms.
- **Debezium-compatible change event formats** — Uses open event standards to simplify interoperability across modern data ecosystems.
- **Support for Avro and JSON serialization** — Provides flexible event formats for a wide range of enterprise applications and consumers.

Trusted Db2 for z/OS Synchronization

- **Built on proven IBM Data Gate technology** — Leverages trusted IBM synchronization technology designed for enterprise workloads.
- **Transaction-aware replication** — Preserves transactional consistency and integrity as data is streamed.
- **Continuous log-based change capture** — Captures changes directly from Db2 logs with minimal impact on production systems.
- **Low-latency synchronization for enterprise workloads** — Delivers near real-time data availability for business-critical use cases.

Open and Interoperable Architecture

- **Open event formats and Kafka standards** — Enables integration without proprietary lock-in.
- **Integration across hybrid cloud environments** — Connects IBM Z data with cloud, on-premises, and distributed applications.
- **Support for microservices and event-driven architectures** — Provides a real-time event backbone for modern application development.
- **Reusable enterprise event streams** — Publish data once and enable multiple downstream consumers across the enterprise.

Enterprise-Grade Security and Governance

- **TLS-encrypted connectivity** — Protects data in motion with secure encrypted communications.
- **Authentication and access controls** — Supports enterprise security policies and controlled access to data streams.
- **Schema publication to Confluent Schema Registry** — Simplifies schema management and promotes consistency across consumers.
- **Support for governance and lineage initiatives** — Helps organizations manage data transparency, compliance, and audit requirements.

Flexible Replication Patterns

- **Initial table load and ongoing CDC replication** — Supports both initial data onboarding and continuous change streaming.
- **Multiple deployment and consumption models** — Provides flexibility to meet diverse enterprise architecture requirements.
- **Support for distributed enterprise architectures** — Enables scalable data distribution across multiple applications and environments.
- **Designed for hybrid integration scenarios** — Supports modern data strategies spanning IBM Z, cloud, and distributed platforms.

Why IBM Data Gate for Confluent?
IBM Data Gate for Confluent combines trusted IBM Z data synchronization technology with Confluent's enterprise data streaming, processing and governance platform, delivering a purpose-built solution for extending Db2 for z/OS data into modern event-driven architectures.

Organizations can leverage trusted IBM Z transactions as a continuous source of real-time business events, helping accelerate AI initiatives, improve responsiveness, simplify integration, and create new opportunities for innovation.

Enable Real-Time Data Streaming from IBM Z
Organizations seeking to unlock greater value from trusted IBM Z data for AI, analytics, automation, and digital experiences need a seamless way to extend transactional data beyond the system of record.

IBM Data Gate for Confluent transforms Db2 for z/OS transactions into continuous real-time event streams that can be consumed across applications, analytics platforms, AI initiatives, and automation workflows. By connecting Db2 for z/OS with Confluent environments, organizations can establish a shared foundation of real-time data that accelerates innovation, enhances customer experiences, and enables modern event-driven business operations.

Why IBM?
IBM is a leading global hybrid cloud and AI, and business services provider, helping clients in more than 175 countries capitalize on insights from their data, streamline business processes, reduce costs and gain the competitive edge in their industries. All of this is backed by IBM's legendary commitment to trust, transparency, responsibility, inclusivity, and service. For more information, visit ibm.com

For more information
To learn more about IBM Data Gate for Confluent, please contact your IBM representative or IBM Business Partner, or visit
https://www.ibm.com/products/data-gate-for-confluent

IBM Corporation
New Orchard Road
Armonk, NY 10504

Produced in the
United States of America
[June 2026]