

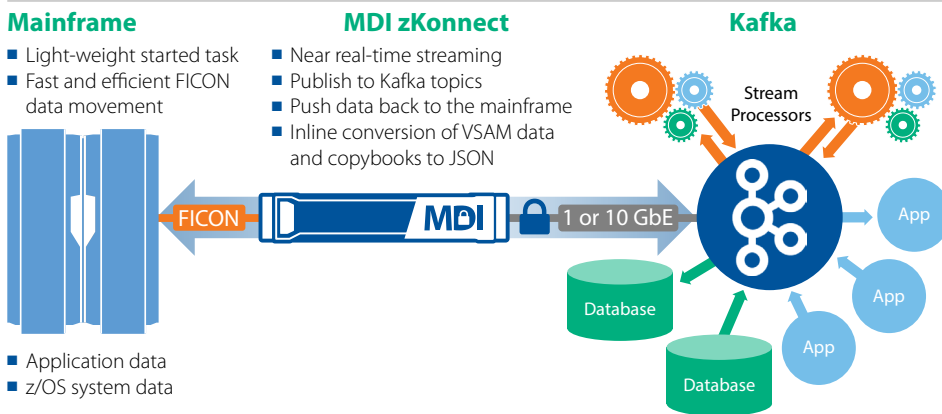
Data-Driven Enterprises Need Mainframe Data... Now

Real-time data collection, analysis and decision-making has become a requirement for competitive advantage in the majority of Fortune 500 companies. Many of them have implemented Kafka for this purpose, processing trillions of transactions a day, improving business agility and unlocking new use cases for their data. As a result, Kafka data pipelines and streaming applications have become the central nervous system for leading data and event-driven enterprises.

Facing Familiar Challenges

Forward-thinking data architects, developers and engineers have recognized the value of mainframe data. Having set out to build an enterprise-wide data pipeline, they have faced all-too-familiar challenges associated with accessing this data.

Chief among the challenges are security, the cost and speed of data movement, and the need for an agile approach that matches the pace of the rest of the data center. Mainframe-based TCP/IP approaches fall short in each category. Using FTP introduces numerous security risks to both the mainframe and the data being moved. SFTP setup on the mainframe is a drawn-out, burdensome task that burns MSUs and sends data at a crawl... none of which are a good match for an agile, real-time architecture. The result is that Kafka integrations, so far, have been suboptimal at best or, more likely, postponed until better options can be found.



zKconnect eliminates the overhead, bottlenecks and security risks associated with data movement over mainframe-based TCP/IP, enabling more efficient and agile streaming data pipelines by using FICON.

An Agile and Efficient Mainframe Data Pipeline

Luminex MDI zKconnect enables mainframes to continuously stream data in near real-time more securely, efficiently and with greater agility than mainframe-based TCP/IP approaches. Data movement from and to the mainframe is over the same trusted FICON I/O channel as DASD and tape. There is no need to laboriously setup individual SFTP instances. CPU cycles for encryption and TCP/IP traffic are offloaded to zKconnect, saving time (up to 3x faster) and costs (up to 97% fewer MSUs).

Most importantly, zKconnect makes publishing to Kafka topics fast and as easy as changing a couple of JCL parameters, enabling the mainframe to keep pace with, and contribute to, the ever evolving needs of a data-driven enterprise.



A Verified Integration with the Confluent Platform



Solution Features

- Near-real time streaming of mainframe application and z/OS system data to Kafka
- Easy and agile JCL-based publishing
- FICON-based data movement
 - More secure, efficient and faster than mainframe TCP/IP
- Unmatched reliability and performance for large data sets
- Inline conversion of VSAM data and copybooks to JSON

Customer Benefits

- Improves enterprise-wide decision-making by including mainframe data in near-real time
- Greater ability to respond to the mainframe data needs of:
 - Data architects
 - Data scientists
 - Data analysts
 - Developers
- Reduced burden on mainframe programming and security teams
- Reduced MSUs for secure data movement, typically:
 - 66% less than FTP
 - 97% less than SFTP

"Within a few years, we're more likely to write data to Kafka than to files."

Lead Enterprise Architect
Fortune 100 Company

More MDI Solutions

The Luminex MDI product line enables limitless data integration, transfer and off-host processing capabilities via task-specific solutions.

- **MDI SLP™ for Data Analytics & Transformation**

Designed to offload mainframe processing of SAS language applications, including MXG reporting from SMF data, to reduce wall-clock time and free up valuable MSUs and DASD for more business-critical workloads.

- **MDI SecureTransfer™**

Leverage native FICON to transfer data to and from the mainframe faster, more efficiently and more securely than TCP/IP. Significantly reduce MSUs by offloading compression, encryption and data conversion processing. Ease the transition with JCL conversion services and eliminate the need to install digital certificates.

- **MDI BigData Transfer™**

Integrate mainframe Big Value Data with Big Data Analytics and Data Lakes using more efficient FICON I/O channels. Greater efficiency and faster data movement enables more frequent access to data for better business intelligence, decision-making and competitive advantage.

- **MDI Cross-Platform Data Sharing™**

Provide integration with other computing platforms and grids by transferring mainframe data to the platform/grid and, when processing is complete, transferring the data back to the mainframe, triggering downstream batch processing.

About Luminex

Luminex serves as a trusted advocate helping enterprise customers protect, manage, and leverage corporate data assets by developing and delivering high quality, innovative technology solutions.

Luminex Software, Inc. 1.888.LUMINEX
871 Marlborough Ave. 1.951.781.4100
Riverside, CA 92507 www.luminex.com

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Mainframe Data Sources

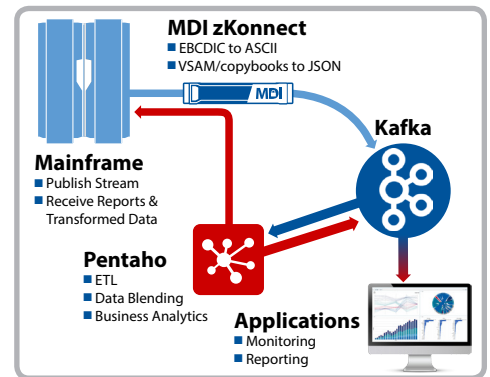
zKconnect offers multiple mechanisms for publishing z/OS application and system data to Kafka topics.

- **LUMXPROC:** Send any application or system data to Kafka in batch
- **XWRITER:** Send output data from any application using the z/OS external writer
- **Logstream Receiver:** Filter and send any data from system logstreams
- **SMF Receiver:** Filter and send any records from the SMF logstream

How Kafka is Being Used by Enterprises

Kafka use cases continue to grow as more input sources are identified, and the mainframe brings an abundance of new and valuable data.

- Asynchronous Applications (continuously updating application data streamed to users)
- Extract, Transform and Load (ETL)
- Backend Analytics
- Building Core Business Applications
- Application Monitoring
- Recommendation/Decision Engines
- System Monitoring
- Financial Data
- Internet of Things

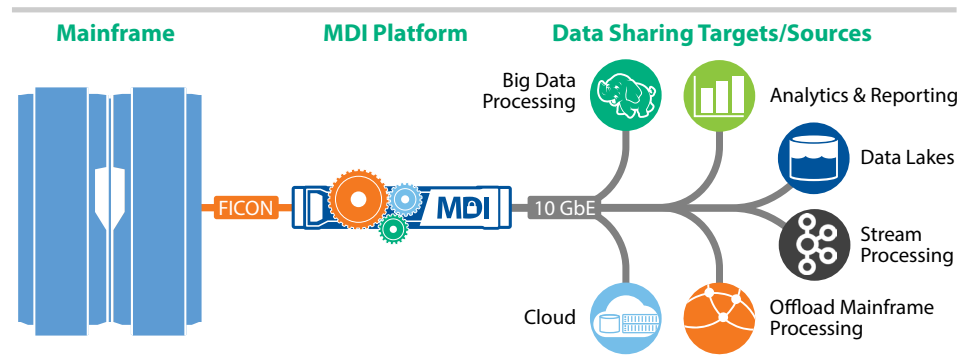


Example of disparate systems using Kafka as a data hub and stream processing pipeline.

Luminex MDI: Mainframe Data Integration

zKconnect is based on the MDI Platform which is a mainframe coprocessor that provides the secure interchange of data between mainframes and distributed systems, via FICON channels, and off-host processing. MDI enables mainframe integration with enterprise-wide business applications and systems such as Big Data applications, computing grids, low-cost NFS, SAN or object storage. The MDI family of products all offer the secure interchange of data between mainframes and distributed systems using the secure and fast FICON channel. The platform consists of a core transport system, based on Luminex's heritage of mainframe connectivity technologies, directing bi-directional work flows for data sharing, transformation and movement wherever mainframes and distributed systems need to securely and efficiently exchange data.

Now, enterprises can take full advantage of all of the data that is stored in mainframes and non-mainframe environments for competitive advantage.



MDI provides secure, efficient access to Big Value Data from the mainframe for use by other authorized business units, partners or customers.