

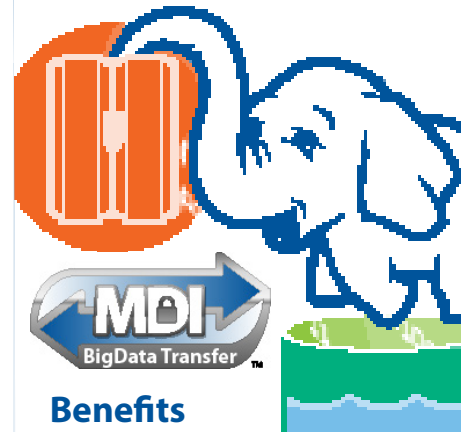
MDI BigData Transfer™

INTEGRATE MAINFRAME DATA & HADOOP ECOSYSTEMS

For Enterprise-Wide Analytics and Eliminating Data Silos

As enterprises increasingly rely on business analytics tools, such as Hadoop ecosystems, to transform decision-making, many have found that incorporating data from the mainframe into these Big Data solutions can be costly, challenging or even impractical. Tools for moving mainframe data typically rely on TCP/IP, complicated security processes (if any at all) and require multiple departments or teams to implement and manage them. The result is a high barrier of entry for some and a slow, restrictive and expensive option for the rest.

MDI BigData Transfer (MDI:BDT) simplifies data movement to Hadoop while ensuring end-to-end security, reducing MSUs, and significantly increasing transfer speeds and reliability. By using the mainframe's secure, high speed FICON I/O channels, instead of TCP/IP based products, users and IT managers can better integrate mainframe data into enterprise-wide data lakes and analytics for improved business decision making. This can be done with the ease, efficiency and security expected from modern "connected mainframes."



Benefits

- Easily feed mainframe data to Hadoop and data lakes
- Improved Security
 - Reduce or eliminate unsecured mainframe TCP/IP ports
 - Encrypt file transfers
 - Integrates with SAF
- Improved Performance and Reliability
 - Transfers data off mainframe via FICON
 - Multiple, simultaneous transfers
 - Large file transfers? No problem!
- Offload Mainframe CPU Cycles
 - Encryption
 - EBCDIC to ASCII conversion
 - TCP/IP processing
- Easy to Implement
 - No digital certificates required on the mainframe
 - Basic JCL deployment

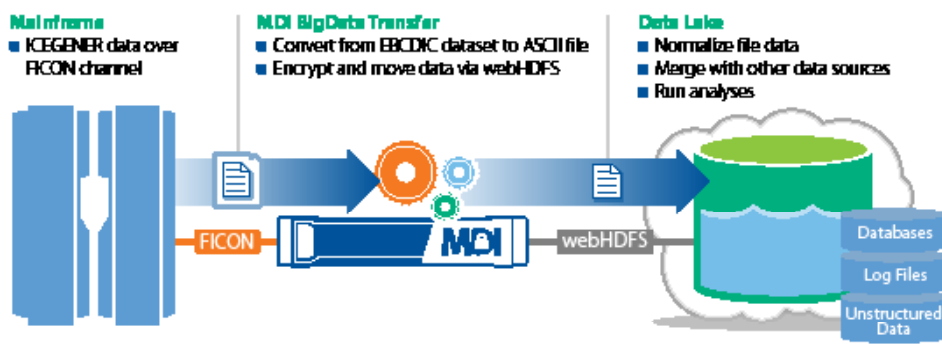
Features

- High speed FICON interface
- Redundant data paths
- Supports Apache Hadoop, Microsoft® Azure®, AWS®, Google Cloud Platform®, Pentaho®, Cloudera® and more

BigValue Mainframe Data is Important to the Entire Enterprise

- Gain more business insight by leveraging all data sources, including mainframes
- Simplify and accelerate data and file exchange between mainframes and HDFS
- Mitigate security risks using the same trusted mainframe I/O channel technology as DASD and tape
- Save mainframe MIPS vs. TCP/IP-based options
- Ease the file transfer administration and management workload

MDI:BDT is built upon Luminex's Mainframe Data Integration (MDI) family of products. BigData Transfer's use of the webHDFS REST API provides secure read and write access to HDFS and supports all HDFS operations. This simplifies and streamlines connectivity to Hadoop (see figure below). So, enterprises that power Big Data analytics with solutions and services such as Microsoft Azure data lakes, Azure HDInsight, integration technologies such as Pentaho and others, can fully leverage all of the data throughout the enterprise.



MDI BigData Transfer leverages native FICON channels, rather than mainframe TCP/IP, to improve the security and performance of data sharing while reducing mainframe CPU usage.

Do More With Your Data

When access to a variety of large volumes of data is immediate and available from all computer platform sources, including mainframes, new types of questions can be asked of the data. These are the questions that uncover previously hidden nuggets of information that are vital to operational success and can propel a company's growth through unique competitive advantages. With BigData Transfer, enterprises are better enabled to do more with their most valuable asset... data.

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 zKconnect™ for Kafka**

Near-real time streaming of mainframe application and z/OS system data to Kafka using easy and agile JCL-based publishing. Achieve unmatched reliability and performance for large data sets as well as off-host inline copybook conversion to standard formats.

- **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.

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Increase Security – Mitigate Risks

Moving mainframe data to Hadoop over FTP or HTTP requires that the mainframe expose vulnerable TCP/IP ports to the network, presenting well-known intrusion targets for malicious activity. This data is also sent as clear text, further increasing the risks of exposing mainframe data. BigData Transfer improves the security of this process by moving data off the mainframe via secure FICON channels and connecting to Hadoop targets over encrypted webHDFS, acting as a DMZ to protect against external and internal threats alike.

Reduce MIPS – Data Where You Want It & When You Want It

Responsibly sharing mainframe data should be efficient and cost-effective, in addition to being secure. Adding MIPS-intensive processes to the mainframe, such as encryption, Hadoop-connecting software and large volumes of data movement over TCP/IP, can diminish the returns of Big Data projects or even make them impractical.

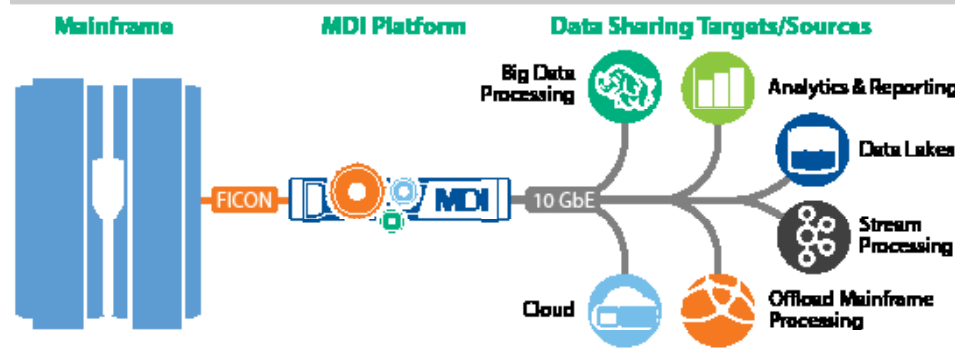
In contrast, MDI:BDT enables mainframes to transfer data over FICON using the extremely efficient ICEGENER facility, then handing off encryption, EBCDIC-to-ASCII conversion and webHDFS data movement to the MDI Platform. By shifting these tasks off-host, MDI:BDT frees up valuable mainframe processor cycles for repurposing or increasing the frequency of data availability for improved business intelligence and decision-making.

Ease of Implementation

BigData Transfer's approach to security and efficiency is the basis for its ease of implementation and simplicity in use. By providing the secure connection to Hadoop, there is no need for the complex processes of obtaining and installing digital certificates on the mainframe or setting up FTPS/SFTP jobs. Sending jobs securely and efficiently is as simple as issuing an ICEGENER with straightforward parameters in JCL.

Luminex MDI: Mainframe Data Integration

BigData Transfer 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.



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

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