



---

## Highlights

- Provides read/write access to mainframe data for any application
  - Access data using current industry-standard application programming interfaces (APIs): SQL, JSON, SOAP, REST
  - Optimized for the IBM® z/OS® operating system for fast, cost-effective data access
  - Combines both structured and unstructured data across platforms
  - Provides in-place data on the IBM z® platform in a security-rich environment
  - Provides support for hybrid, on-premises, cloud, Hadoop and mainframe computing architectures
- 

# IBM Data Virtualization Manager for z/OS

*Virtually any data to any application*

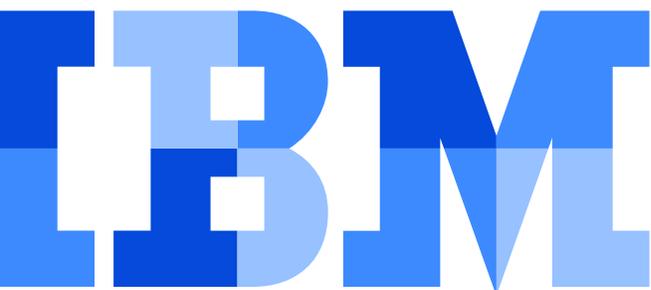
To successfully compete, businesses need immediate, real-time insight about their customers, the market and how the business itself is operating. Access to real-time data helps business leaders make faster, more informed decisions.

Unfortunately, enterprise data is often distributed across multiple platforms, formats and locations, making it difficult to access for new revenue opportunities or use to identify potential threats. Nonrelational mainframe data has been especially difficult for enterprises to access because its format is locked in legacy applications.

Processing large amounts of mainframe data for CPU-intensive applications can also increase costs and affect critical transactional throughput. To address this challenge, organizations continually move mainframe data to data marts and data warehouses. This costly and time-consuming data movement process produces information that's outdated as soon as it's available and can't be used for real-time applications that need to update the data source.

Today's API economy and era of cognitive computing require a faster, more modern approach to data integration. IBM Data Virtualization Manager for z/OS allows organizations read/write z/OS data access and the ability to join data with other enterprise data sources in real time, providing comprehensive information that's easily accessible by essentially any application.

IBM Data Virtualization Manager creates virtual, integrated views of data, and enables users and applications read/write access to mainframe data *in place*, without having to move, replicate or transform data. And it performs these tasks with minimal additional mainframe processing costs. By unlocking mainframe data using popular, industry-standard APIs, Data Virtualization Manager saves you time and money.



Developers can immediately combine mainframe data with other enterprise data sources to gain real-time insight, accelerate deployment of new web and mobile applications, modernize the enterprise, and take advantage of today's API economy.

### **Unlock mainframe data for virtually any application**

Web applications are interconnected, interact through APIs, and enable customers and enterprises to digitally execute processes quickly. These applications need agile read/write access to mainframe data, both relational and nonrelational, in an online environment. Applications that use traditional, scheduled batch programs to update mainframe transactional data can be transformed into online mobile applications that can update mainframe data using web services APIs with Data Virtualization Manager.

Data Virtualization Manager can virtualize mainframe sources, such as virtual storage access method (VSAM), adaptable database system (ADABAS), IBM IMS™ Database Manager, IBM Db2® for z/OS and IBM System Management Facility (SMF). Plus, its power to federate these sources with virtually any other data brings the power of the mainframe to essentially any application. And it performs with minimal mainframe processing costs and without the need for mainframe skills or additional coding. Updating or creating new web and mobile applications using mainframe data can produce elastic, interconnected and more secure applications that produce competitive advantages for your industry.

### **Gain business insight from transactional mainframe data**

Without real-time access to transactional and operational mainframe data, you don't have a comprehensive picture of your customer. This constraint limits your ability to offer enhanced customer service, real-time target marketing and informed decisions. Every credit card swipe or online purchase provides real-time customer data. When enriched with sources, such as social media, location and brand preference, it helps you anticipate customer preferences. For example, a wealth manager might use Data Virtualization Manager to provide real-time, structured and unstructured data to create a client report on unrealized gains or losses to promote a new investment opportunity.

With Data Virtualization Manager, you can use mainframe data in real time without the cost, complexity and delay associated with extract, transform, load (ETL) processes or hard-coded connectors. You can also integrate mainframe data with other enterprise data instantly—without waiting for new data to be loaded into the data warehouse. Analytics applications and business analysts gain immediate access to the information business leaders want. Because Data Virtualization Manager runs within a mainframe specialty engine, it minimizes the impact to mainframe general-purpose processors. Data is available when you need it, in the form you need, with reduced cost and complexity.

### **Reduce the cost and complexity of moving mainframe data**

Using ETL processes within a mainframe to move data is a well-established practice. Organizations now recognize that there's simply too much data and not enough time to move it all into an enterprise data warehouse. The cost associated with moving mainframe data continues to grow.

According to research by the IBM Competitive Project Office, two financial industry clients expended 16 percent and 18 percent of their total available mainframe processing capacity due to ETL-related data movement.<sup>1</sup> Data scientists now realize that using ETL to access mainframe data is no longer efficient or responsive enough to meet the requirements of modern applications. Data Virtualization Manager offers a cost-efficient option for providing mainframe data in the right format, at the right time, without the necessity of moving data.

Data Virtualization Manager can serve as a data utility that optimizes your existing ETL processes to provide real-time data in place of your largest batch jobs. Use Data Virtualization Manager as an optimized data layer to accelerate data quality and data integration processes. And because Data Virtualization Manager runs almost exclusively on the IBM z Systems® Integrated Information Processor (zIIP), it doesn't consume mainframe million instructions per second (MIPS) capacity, and can significantly reduce mainframe cost associated with ETL.

### Reduce business risk through faster identification of threats and operational failures

Companies in the financial services sector face increased pressure from new competitors, regulatory compliance requirements and cyberattacks. Their technical leaders lack easy access to the mainframe's raw operational data that provides real-time insight into potential security risks, compliance issues and systems readiness.

Mainframes rely on log-based replication to capture operational data in SMF records. The data is collected and written to logs that must be extracted and manipulated into a format for analytics. It can take hours for SMF information to reach the executive responsible for security or compliance. This delay can lead to security breaches, compliance violations and fines, or even system failure.

Unlike other products on the market, IBM Data Virtualization Manager provides immediate access to mainframe SMF data, intercepting it in flight while it's being collected and written to the record. With IBM Data Virtualization Manager, the SMF data is available immediately in a format that can be used for analysis, so threats can be addressed before those threats impact risk profiles or affect operations.

### Conclusion

Data Virtualization Manager provides virtually any application access to essentially any enterprise data. It lets your organization use mainframe data in real time without the cost, complexity and delay associated with data movement or hard-coded connectors. You can integrate data on IBM z platforms with other enterprise data instantly—without waiting for new data to be loaded into the data warehouse. Applications and business analysts gain immediate access to the information business leaders want. The result is data that's available when needed, in the form applications can easily use, and with reduced cost and complexity.

### For more information

To learn more about IBM Data Virtualization Manager for z/OS, contact your IBM representative or IBM Business Partner, or visit [ibm.com/sa-en/marketplace/data-virtualization-manager-for-zos/resources](https://ibm.com/sa-en/marketplace/data-virtualization-manager-for-zos/resources).

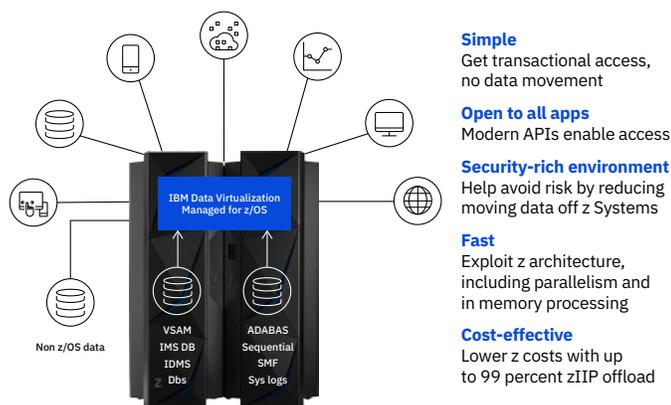


Figure 1: Data Virtualization Manager for z/OS makes virtually any enterprise data available for essentially any application.



---

© Copyright IBM Corporation 2018

IBM Corporation  
New Orchard Road  
Armonk, NY 10504

Produced in the United States of America  
March 2018

IBM, the IBM logo, ibm.com, Db2, IBM z, IMS, z/OS, and z Systems are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

The client is responsible for ensuring compliance with laws and regulations applicable to it. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.

Statement of Good Security Practices: IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM DOES NOT WARRANT THAT ANY SYSTEMS, PRODUCTS OR SERVICES ARE IMMUNE FROM, OR WILL MAKE YOUR ENTERPRISE IMMUNE FROM, THE MALICIOUS OR ILLEGAL CONDUCT OF ANY PARTY.

- 1 “The ETL Problem,” Clabby Analytics Advisory, October 2013  
<http://nebula.wsimg.com/19aef5aab68c9a2f40790fbd3b07b5a?AccessKeyId=CCAA67622F6695DC4DB7>



Please Recycle