

IBM WebSphere Information Integrator Version 8.2 — Federation

Highlights

- **Access data and content from multiple sources on multiple platforms in multiple formats as if from a single source**
- **Unlock the value of isolated information assets**
- **Take advantage of a standards-based strategic integration platform**
- **Extend the value of existing analytical and reporting applications by providing real-time access to integrated and relevant information**

IBM WebSphere Information Integration

Organizations face an information challenge. Where is it? How do I get it when I need it in the form I need? What does it mean? What insight can I gain from it? Can I trust it? How do I control it? The list goes on, and the challenges grow unceasingly if businesses cannot ensure that they have access to authoritative, consistent, timely and complete information.

The IBM WebSphere® Information Integration platform integrates and transforms any data and content to deliver information you can trust for your critical business initiatives. It provides breakthrough productivity, flexibility and performance, so you and your customers and partners have the right information for running and growing your businesses. It helps you understand, cleanse and enhance information, while governing its quality to ultimately provide authoritative information. Integrated across the extended enterprise and delivered when you need it, this consistent, timely and complete information can

enrich business processes, enable key contextual insights and inspire confident business decision-making.

Industry-Leading Federation Integrates Information in Place

The IBM WebSphere Information Integration platform provides industry-leading federation for enterprises. Federation enables your applications to access and integrate diverse data and content sources as if they were a single resource—regardless of where the information resides—while retaining the autonomy and integrity of the data and content sources.

The WebSphere Information Integration platform offers two complementary federation capabilities:

- *Federation that offers an industry-standard structured query language (SQL)-based access paradigm to provide federation across a wide range of data and content sources¹*
- *Federation that offers an application programming interface (API) optimized for the business needs of those who require broad content (unstructured) federation solutions²*

SQL-based federation, as offered in IBM WebSphere Information Integrator Standard Edition and Advanced Edition, and the associated value of this federation capability comprise the focus of this document.

Transparent, Heterogeneous and Extensible

WebSphere Information Integration SQL-based federation offers integrated views of a wide range of heterogeneous data and content sources. Applications use a standard SQL interface or standard APIs to query content and data sources while the sources maintain their autonomy. WebSphere Information Integration fits neatly and transparently behind common analytical and reporting tools; development environments; portals; and other standard IT infrastructure components. For instance, business applications access integrated views of existing and new information through an abstraction layer that insulates them from changes in the source material they are viewing.

Also, if your business has standardized on a service-oriented architecture, you can convert SQL requests quickly and automatically into Web services. Similarly, result sets can be automatically converted into extensible markup language (XML) documents, validated and published with a single SQL request.

Furthermore, WebSphere Information Integration offers robust C++ and Java™ developers' kits to extend access to new sources.

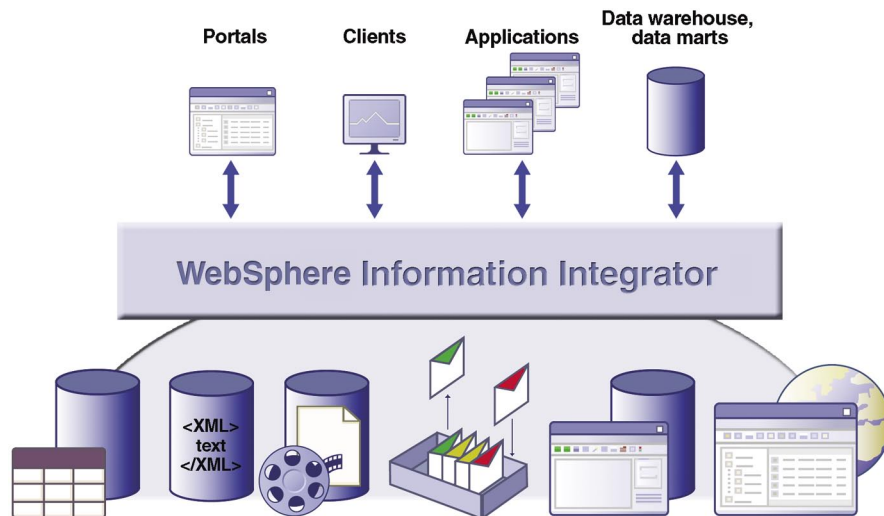


Figure 1: WebSphere Information Integration federates disparate sources

Designed with Best-of-Both-Worlds Function Support

WebSphere Information Integrator Standard and Advanced Editions offer the best of both worlds in terms of rich functionality:

- *Standard SQL-supported functions across all integrated information, plus the ability to compensate for missing functions in back-end data sources*
- *A maintained ability to take advantage of underlying data sources and their unique capabilities, bolstered by value-added capabilities beyond those native to these sources*

WebSphere Information Integration federation provides applications with excellent read/write access to diverse data and content sources without compromising transaction speed or enterprise scale. Using a metadata-driven approach, WebSphere Information Integration federation

dynamically translates SQL statements into native access commands that are optimized for each information source. Results are reformatted into standard relational row/column answer sets so applications, such as those for business intelligence or customer data management, can work seamlessly. The result is efficient integration of enterprise data and content without specialized or proprietary programming.

Performance-Enhancing Technology

WebSphere Information Integrator Standard and Advanced Editions deliver federation as a real-world integration option. They include state-of-the-art technology to ensure that applications deliver industry-leading performance for your business environment. WebSphere Information Integration SQL-based federation uses powerful cost-based distributed query optimization to dynamically enhance queries via syntactical transformations and choose optimal federated

execution plans to distribute the query workload. The architecture supports intra-partition query parallelism on symmetric multiprocessor (SMP) systems and inter-partition query parallelism on massively parallel processing (MPP) systems. This allows WebSphere Information Integrator Standard or Advanced Edition to respond to queries with the performance demanded by information integration initiatives.

Overall, with these performance-enhancing capabilities, WebSphere Information Integrator Standard and Advanced Editions can deliver the performance required for practical implementations in your business. From extending the reach of reporting and analysis applications with enterprise information beyond the warehouse to compiling a unified view of a customer, employee or product from disparate sources to calculating key

performance indicators from diverse real-time information, WebSphere Information Integration delivers. Using SQL federation with standard tools can help reduce project hand coding and development time by half, allowing your organization to more easily access more information, speed time-to-market and reduce development and maintenance costs.

Sources accessible via WebSphere Information Integrator SQL-based federation

Relational data sources	Content sources ²	Packaged applications ³
<ul style="list-style-type: none"> IBM DB2® Universal Database™ IBM Informix® databases Oracle Open Database Connectivity (ODBC)–accessible sources Sybase SQL Server Sybase Adaptive Server Enterprise Microsoft® SQL Server Teradata 	<ul style="list-style-type: none"> IBM DB2 Content Manager IBM DB2 Content Manager OnDemand IBM WebSphere MQ Workflow IBM Lotus® Domino.Doc®/ Domino® Document Manager IBM Lotus Notes® Various FileNet sources EMC Documentum Microsoft Index Server/NTFS Open Text Livelink Stellent Content Server Interwoven TeamSite Hummingbird Enterprise DM 	<ul style="list-style-type: none"> SAP, PeopleSoft, SIEBEL
		Life Sciences sources
		<ul style="list-style-type: none"> KEGG, Entrez, BLAST, BioRS HMMER, HMMSEARCH tool
		Other sources and formats
		<ul style="list-style-type: none"> Web services WebSphere MQ message queues WebSphere Portal search engine Microsoft Excel spreadsheets Microsoft Exchange Table-structured flat files XML documents OLE DB–accessible data sources
Mainframe sources ¹		
<ul style="list-style-type: none"> VSAM, IAM, Sequential IMS Software AG Adabas Computer Associates CA-Datcom Computer Associates CA-IDMS 		
	Extensibility	
	<ul style="list-style-type: none"> C++ and Java Software Developers' Kits 	

¹Via separate purchase of IBM WebSphere Information Integrator Classic Federation

²Via separate purchase of IBM WebSphere Information Integrator Content Edition

³Via separate purchase of WebSphere Business Integration Adapters



System Requirements:

IBM WebSphere Information Integrator Version 8.2—Federation

WebSphere Information Integrator Standard Edition, WebSphere Information Integrator Advanced Edition and WebSphere Information Integrator Advanced Edition Unlimited support the following operating systems: IBM AIX®, HP-UX, Linux®, Solaris, and Microsoft Windows®. For current, detailed hardware and software system requirements for these and other WebSphere Information Integration products, visit ibm.com/software/data/integrations

For More Information

To learn more about the technologies and products behind IBM information integration solutions, contact your IBM marketing representative or IBM Business Partner, or visit ibm.com/software/data/integration.

© Copyright IBM Corporation 2005

IBM Software Group
Route 100
Somers, NY 10589
U.S.A.

Printed in the United States of America
October 2005
All rights reserved

¹ For details on SQL-based federation for mainframe databases, see the IBM WebSphere Information Integrator Classic Federation and Classic Event Publisher Version 8.2 data sheet.

² For details on content-centric federation, see the IBM WebSphere Information Integrator Content Edition Version 8.2 data sheet.

IBM, the IBM logo, the On Demand Business logo, AIX, DB2, DB2 Universal Database, Domino, Informix, Lotus Notes, WebSphere and z/OS are trademarks of International Business Machines Corporation in the United States, other countries or both.

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States, other countries or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product or service names may be trademarks or service marks of others.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates. Offerings are subject to change, extension or withdrawal without notice.

♻️ Printed in the United States on recycled paper containing 10% recovered post-consumer fiber.

The IBM home page on the Internet can be found at ibm.com