

WebSphere® software

## IBM WebSphere Data Interchange, Version 3.3

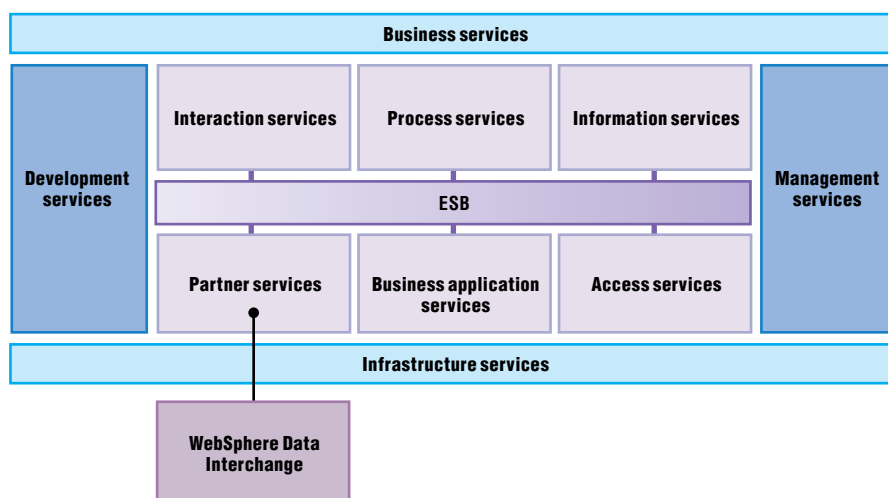
### Highlights

- Provides robust EDI and industry-standards-based integration
- Includes a WebSphere Data Interchange Client to create, deploy, run and manage WebSphere Data Interchange artifacts
- Flexibly integrates with middleware and back-end business applications
- Includes a Java API for Web services integration
- Supports validation and transformation for EDI, XML and other data formats
- Uses WebSphere MQ messaging to provide assured delivery
- Supports connectivity through EDI VANs, and EDI/Internet transport protocols
- Integrates with WebSphere Partner Gateway to support B2B gateway functions
- Extends SOAs with EDI and industry standards

### Support global trading-partner integration requirements

Supply and value chains extend globally. Business processes extend across companies. Business rules change constantly. Global regulatory mandates add transparency, management controls, records retention and audit-trail requirements.

Thousands of daily business transactions place demands on business and IT infrastructures. To reliably implement business processes that extend to trading partners, companies must support seamless, security-rich, reliable and auditable integration with trading partners' systems. IBM WebSphere® Data Interchange for Multiplatforms, Version 3.3 is a robust, stand-alone electronic data interchange (EDI) and industry-standards-based trading-partner integration solution. It can scale with your company's evolving EDI and business-to-business (B2B) requirements, enabling reliable business-process integration with trading-partner systems.

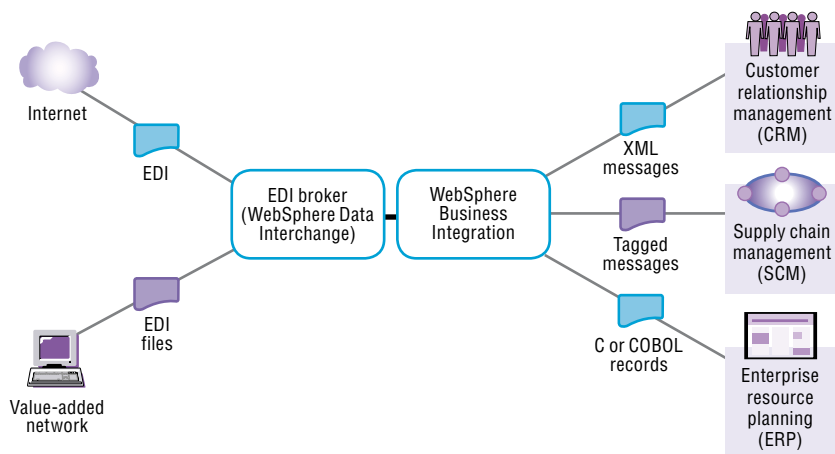


WebSphere Data Interchange can fit within your SOA and help you meet your company's evolving EDI and B2B requirements by improving business-process integration with trading-partner systems.

WebSphere Data Interchange enables you to meet trading-partner integration requirements and integrate back-end business applications with the tools and technology necessary to extend business processes to trading partners. Business data can be transformed from internal application-data formats to external standards-based formats to facilitate exchange with trading partners' systems in a reliable manner, either over EDI value-added networks (VANs) or through EDI/Internet transport protocols, such as EDIINT AS1, AS2 or AS3.

### Supporting EDI standards-based data transformation and management

WebSphere Data Interchange enables you to create, deploy, implement and manage data transformation and related processes between standards-based EDI and XML formats, and internal application-data formats. It supports the mandatory requirements for EDI trading-partner exchanges, such as auditing and data-content validation, as well as providing other functions such as trading-partner profiles, enveloping, syntactic validation and EDI functional acknowledgments. Transmission scheduling and transaction-error handling enable reliable, security-rich data exchange with trading partners.



WebSphere Data Interchange helps you create, deploy, implement and manage data mapping between EDI, XML and application data formats.

### What's new in WebSphere Data Interchange for Multiplatforms, Version 3.3

WebSphere Data Interchange for Multiplatforms, Version 3.3 includes the following new features and functions:

- *Browser-based reporting*
- *Improved error and notification handling*
- *Improved group and role-based management*
- *Extended management reporting to data-transformation maps*
- *Improved audit-trail function*
- *Enhancements to document store tables*
- *Support for submitting transaction replay and resend from the WebSphere Data Interchange Client*
- *As-needed submission of transformation commands*
- *Support for multiple and expanded record IDs*
- *Streaming function to support large messages*
- *Support for database globalization*
- *Support for new ANSI X12 envelope data elements (ST03)*
- *Support for new ANSI X12 functional acknowledgments (X12 999)*
- *A Java™ application programming interface (API) for invoking WebSphere Data Interchange as a Web service*
- *Support for directory-based triggering of WebSphere Data Interchange Server*
- *Support for IBM Support Assistant and IBM Education Assistant*
- *Currency updates*

### *Browser-based reporting*

WebSphere Data Interchange, Version 3.3 upgrades the reporting function to a browser-based interface, and removes the dependency upon external viewer software. The reporting function includes the capability to generate predefined reports associated with using all WebSphere Data Interchange objects.

### *Improved error and notification handling*

With this release, WebSphere Data Interchange replaces common-error services with a new common-event handler to enable pluggable actions when an event (including any message) occurs. It also supports error and information messages in a program-readable format (XML and fixed-record), to allow for automated processing, including the subsequent creation of common base events (CBEs) and a common event infrastructure (CEI), as well as supporting the ability to route message files to designated files or IBM WebSphere MQ queues, so that they can be handled by a program defined by you or provided by WebSphere Data Interchange. The message files are routed based on criteria that you can specify, such as a particular error severity level or the presence of specific errors.

WebSphere Data Interchange, Version 3.3 also includes the following error- and notification-handling improvements:

- *A Java API to read and parse the message files, and to enable you to process them easily.*
- *Support for improved filtering of error messages to help reduce PRTFILE size.*
- *Support for adding the physical file names to messages in the PRTFILE.*
- *Support for e-mail alerts through Simple Mail Transfer Protocol (SMTP) when errors or other conditions occur. These alerts can also be sent to pagers, cell phones and any other devices that support SMTP text messages. A handler is provided to process the program-readable message log, and to generate the alert. And configuration parameters enable you to customize the e-mail alerts.*
- *Support for a pluggable e-mail component, enabling you to integrate WebSphere Data Interchange messages with your e-mail system.*
- *Sample source code for the e-mail handler program, enabling you to customize functionality.*

### *Improved group- and role-based management*

WebSphere Data Interchange now includes improved group- and role-based access and management for the WebSphere Data Interchange Client. This capability enables you to assign users to groups or roles, to enable permissions to be granted to those roles and groups, and to restrict access based on roles and groups.

### *Extends management reporting to data-transformation maps*

This release of WebSphere Data Interchange extends management-reporting function to data-transformation maps, a function that existed only for send-and-receive maps in past releases. This new function captures operational metrics, such as, but not limited to, number, size, document type and status of transactions exchanged with trading partners. It also enables you to identify which trading partners are using which maps. You can use this function for reporting or troubleshooting.

### *Improved audit-trail function*

An improved audit-trail function in WebSphere Data Interchange enables you to maintain a complete chronological log of all changes made to WebSphere Data Interchange objects, such as date, time and user ID associated with create, update and delete changes.

#### *Enhancements to document store tables*

With this release, WebSphere Data Interchange includes enhancements to document store tables that enable the product to support flat-file, XML and international (Unicode) data, along with the existing capability to store EDI data. Enhancements have also been made to data-transformation processing to store and retrieve data using flat-file, XML and international (Unicode) data. And a PERFORM command has been added that can check the document store for functional acknowledgments and generate errors for any that are overdue. The related e-mail alert function is handled in conjunction with the new e-mail alerting and event-handling capabilities.

Enhancements to the WebSphere Data Interchange Client enable you to view the new document store tables. WebSphere Data Interchange Client also now enables you to reprocess transactions and interchanges from the document store, similar to the capabilities previously in the WebSphere Data Interchange facility on IBM z/OS®.

#### *Support for submitting transaction replay and resend from the WebSphere Data Interchange Client*

You now have the ability to submit transaction replay and resend commands and to view the results from a list within the WebSphere Data Interchange Client and from the document store. Also, dependency upon the Time Sharing Option (TSO) and IBM CICS® transaction menu in z/OS environments has been removed.

#### *As-needed submission of transformation commands*

WebSphere Data Interchange enables as-needed submission of transformation commands, as well as the ability to view the results, from within the WebSphere Data Interchange Client. This capability enables greater flexibility in testing and production management and the ability to view related audit logs. You can also submit PERFORM commands to the server from the WebSphere Data Interchange Client and run such commands in real time.

#### *Support for multiple, expanded record IDs*

With this release, WebSphere Data Interchange now supports multiple, expanded data-format record IDs used by SAP and other fixed-format application data files. Support has also been extended from a single maximum 16-character fixed-location record ID to multiple 64-character floating

record IDs for each record. This capability enables greater flexibility in defining and using records within application data files. You can also enable record ID length and position for each record to be in a different position compared with other records.

#### *Streaming function to support large messages*

WebSphere Data Interchange adds streaming support for handling large messages (those greater than 200 MB) by being able to parse data from disk instead of from memory. Support has also been added for Pageable Abstract Message Model (PAMM). These enhancements help reduce the amount of data that is passed between components, enabling you to reduce the memory requirement and temporary work files for handling large messages.

#### *Support for database globalization*

Support for database globalization enables UTF-8 and UTF-16 international characters to be stored in the database, and support for the use of such characters in data-transformation maps. Database globalization capabilities also enable the enhanced XML serializer to support user-controlled encoding for EDI and XML format files.

Support for international (non-English) data has been improved by updating the database to handle international Unicode data. These improvements include:

- *Updating the underlying database tables to support Unicode data.*
- *Enabling the import and export of Unicode data, including international characters.*
- *Updating the WebSphere Data Interchange Client so that you can read and enter Unicode data, including international characters, as part of database objects such as translation tables, code lists and trading-partner profiles.*
- *Improving data-transformation processing so that it correctly handles Unicode data that is stored in the database.*

#### ***Support for new ANSI X12 envelope data elements (ST03)***

WebSphere Data Interchange now supports new envelope data elements within segments in ANSI X12 and UN/EDIFACT standards (such as ST03 in ANSI X12). You can also access and set the new fields. When you specify

the new fields in an input EDI, you can place values in maps using the `GetProperty()` command. The `SetProperty()` command enables you to set the values in the new fields in an output EDI. You can also specify the new fields in the envelope profile.

You can use the ST03 value as part of the dictionary lookup for X12 transactions, and the UNH05 and UNH06 values as part of the dictionary and document lookup for UN/EDIFACT transactions. Existing data elements support the wider lengths if they have been defined by the new EDI standards. Also, functions associated with envelope profiles, deferred enveloping and the document store are improved.

#### ***Support for new ANSI X12 functional acknowledgments (X12 999)***

This release of WebSphere Data Interchange adds support for the ANSI X12 999 functional-acknowledgment transaction set, enabling the reporting of validation errors when a transaction set is validated against an implementation guideline. The ANSI X12 999 transaction replaces the ANSI X12 997 transaction. This support complements the validation map function, which validates the implementation guideline and provides error information to the

ANSI X12 999 transaction, whereas the validation component validates against the base message definition and provides error information to the ANSI X12 997 transaction.

#### ***A Java API for invoking WebSphere Data Interchange as a Web service***

You can now initiate WebSphere Data Interchange from Java applications and invoke WebSphere Data Interchange as a Web service in a service oriented architecture (SOA) environment. The Java API duplicates the function of the existing C++ API.

#### ***Support for directory-based triggering of WebSphere Data Interchange Server***

Support for directory-based triggering of WebSphere Data Interchange Server, along with the current WebSphere MQ triggering capability, enables distributed users to receive files through File Transfer Protocol (FTP), and have translation operations performed on such files in the same manner as data placed on a WebSphere MQ queue that triggers WebSphere Data Interchange processing. This feature is implemented in the WebSphere Data Interchange multithreaded adapter.

### *Support for IBM Support Assistant and IBM Education Assistant*

Support for IBM Support Assistant means that you can find the information you need quickly. IBM Support Assistant provides quick access through its concurrent-search tool, which searches IBM documentation and returns the results categorized by source. Further, IBM Support Assistant provides a product-information feature that provides key product-information links to support self-help, including product support pages, home pages, troubleshooting guides, education road maps and IBM Education Assistant, recommendation updates, and newsgroups and forms.

IBM Education Assistant provides online training and documentation for IBM WebSphere products. Through this support, you can take advantage of additional Web-based educational and training materials.

### *Currency updates*

WebSphere Data Interchange, Version 3.3 maintains currency with prerequisite and corequisite software. It adds support for IBM DB2® Universal Database™, Version 8.2 and the XML Toolkit for z/OS, Version 1.9. For z/OS batch applications, the XML4C parser from XML Toolkit, Version 1.9 is supported. For distributed applications, the XML4C parser, Version 5.6 is supported. For IBM CICS Transaction Server, Version 2.3 or later, support is added to use the XML parsing APIs that are included in Java, Version 1.4 and later.

### **Robust products for your SOA**

With the WebSphere software platform, you can combine business-process management (BPM) products to integrate business processes within and between companies. WebSphere Data Interchange for Multiplatforms, Version 3.3 is part of the WebSphere software platform—a set of integrated products built on common SOA-related technologies. No matter where you are in the business-growth cycle, WebSphere software can help your business grow—at the speed the market demands.

Building on this robust platform, you can connect disparate IT environments to maximize your current IT investment and take advantage of existing skills with a full range of BPM solutions from the WebSphere software portfolio.

### **For more information**

To learn more about IBM WebSphere Data Interchange for Multiplatforms, Version 3.3, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/websphere/  
datainterchange](http://ibm.com/websphere/datainterchange)

To join the Global WebSphere Community, visit:

[www.websphere.org](http://www.websphere.org)

## WebSphere business-integration software products to support SOA

| Product                                       | Function   | Benefit   |
|---|--|---|
| IBM WebSphere Business Modeler                | Enables your organization to visualize, comprehend, document and deploy its business processes.  | Enables tight links between business processes, technology enablement and strategic business objectives.  |
| IBM WebSphere Integration Developer           | Provides a common tool for building SOA-based integration for IBM WebSphere Process Server, IBM WebSphere Enterprise Service Bus (WebSphere ESB) and IBM WebSphere Adapters. | Enables integration developers to assemble complex business solutions for processes, mediations, adapters or code components.   |
| IBM WebSphere Process Server                  | Delivers a BPM engine to automate and manage business processes.   | Enables alignment of business and IT goals by implementing automated BPM.   |
| IBM WebSphere Business Monitor                | Enables you to monitor business processes in real time, providing a visual display of process status, and alerts and notifications.  | Enables you to use real-time monitoring and analysis capabilities to continuously improve business processes.   |
| IBM WebSphere Adapters                        | Enable you to connect and integrate disparate ERP, human resources (HR), CRM and supply chain systems.   | Provide investment protection, business agility, speed of implementation, enhanced competitiveness, flexibility and adaptability, and ease of use.  |
| IBM WebSphere ESB                             | Provides a framework for implementing SOA by supporting flexible and modular connectivity and messaging.   | Enables your company to focus on core business needs rather than the IT infrastructure required for connecting the programs together by allowing you to add new services or make changes to existing services with little or no impact on the use of existing services.   |
| IBM WebSphere MQ                              | Provides reliable messaging backbone for integration between disparate applications with assured delivery.   | Enables you to take advantage of the reliable messaging across more than 80 platforms to connect applications and Web services.   |
| IBM WebSphere Message Broker                  | Supports powerful data manipulation and integration between disparate sources of data.   | Provides an advanced ESB that delivers the connectivity and data transformation to support SOA.   |
| IBM WebSphere Transformation Extender         | Supports complex data transformation without coding, and provides support for EDI, HIPAA, SWIFT and other industry standards.  | Enables consistent data transformation and enrichment, reduced application development and maintenance costs, increased knowledge reuse, scalability of development, standardized components, increased quality of applications, reuse of transformation across the enterprise and decreased time to market of new applications   |
| IBM WebSphere Service Registry and Repository | Provides clear visibility into service associations and relationships while encouraging reuse of services to avoid duplication and reduce cost.                              | Enables companies to increase the business value of SOA through better management and governance of Web services.   |
| IBM WebSphere Partner Gateway                 | Supports B2B gateway functions that enable integration between trading partners based upon EDI and industry standards.   | Promotes the reuse of partner profiles, connections, protocols and processes, centralizes logging, auditing, correlation, and analysis of B2B transaction delivery, including acknowledgments, receipts, errors and exceptions, and supports the myriad of current and emerging B2B communication protocols and security standards in a common consolidated way, which is needed to adhere to the mandates of trading partners. |

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## IBM WebSphere Data Interchange, Version 3.3 at a glance

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### Multiplatforms hardware requirements

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- Any server capable of running the IBM AIX® or Microsoft® Windows® 2000, Windows XP or z/OS operating system
  - Any Intel® workstation capable of running Windows 2000, Windows XP or AIX, Version 5.2
  - CD-ROM drive for installing the distributed material
  - Required network hardware and communication connection
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#### *Additional requirements for Windows 2000 or XP*

- Intel Pentium® III processor at 933 MHz or faster
  - 1024 MB memory
  - Storage device with a minimum of 150 MB available space in addition to space for user data
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#### *Hardware requirements for WebSphere Data Interchange Client*

- Any workstation with an Intel Pentium processor and a storage device with a minimum of 150 MB available space in addition to space for user data
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### Multiplatforms software requirements

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- AIX, Version 5.2, Windows 2000 or Windows XP
  - IBM DB2 Workgroup Edition, Version 8.2 with Open Database Connectivity (ODBC), provided with the product for use with WebSphere Data Interchange only
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#### *Software requirements for WebSphere Data Interchange Client*

- 32 bit Windows 2000 or Windows XP operating system with a minimum of 512 MB RAM
  - IBM DB2 Connect™ Personal Edition, Version 8.2, provided with the product for use with WebSphere Data Interchange only
  - Client/server architecture that provides ODBC to the server
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### z/OS hardware requirements

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- Any server capable of running on the listed z/OS releases
  - A PC with Windows 2000 or Windows XP for running the WebSphere Data Interchange for z/OS Client
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### z/OS software requirements

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- z/OS, Version 1.6 (ESA mode) or later
  - IBM DB2 Universal Database for z/OS and OS.390®, Version 7 or later
  - DB2 Connect, Version 8.2
  - Windows 2000 or Windows XP for running the WebSphere Data Interchange for z/OS Client
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### Optional software

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- WebSphere MQ for z/OS, Version 5.3.1 or later
  - EDI communication software such as GXS Expedite Base/MVS, Version 4.5 or GXS Expedite/CICS for MVS, Version 4.5
  - Software products that support the system authorization facility interface for WebSphere Data Interchange for z/OS security
  - IBM WebSphere MQ, Version 6.0, provided with the product for use with WebSphere Data Interchange for multiplatforms only
  - IBM WebSphere Message Broker, Version 6.0
  - GXS Expedite Base and AIX for IBM RS/6000®, Version 4.5 or GXS Expedite for Windows, Version 4.6.2
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### Notes:

1. WebSphere Data Interchange for z/OS, Version 3.3 can operate in two modes: batch processing for EDI and online response to EDI requests. Online mode requires a CICS environment, which is provided by IBM CICS Transaction Server for OS/390, Version 1.3 or later, or IBM CICS Transaction Server for z/OS, Version 2.3 or later. These products must be purchased and installed separately.
2. To install the IBM XML Toolkit for z/OS, Version 1.9, visit [ibm.com/servers/eserver/zseries/software/xml/](http://ibm.com/servers/eserver/zseries/software/xml/).
3. To perform translation to and from XML formats in z/OS batch, the XML Toolkit is required. CICS Transaction Server for OS/390 uses the XML parsing APIs that are built into Java SDK, Version 1.4.



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IBM Corporation  
Software Group  
Department DD4A  
P.O. Box 30021  
Tampa, FL 33630-3021

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