Helping you transform, validate and route vital business information between applications, across and beyond your organization
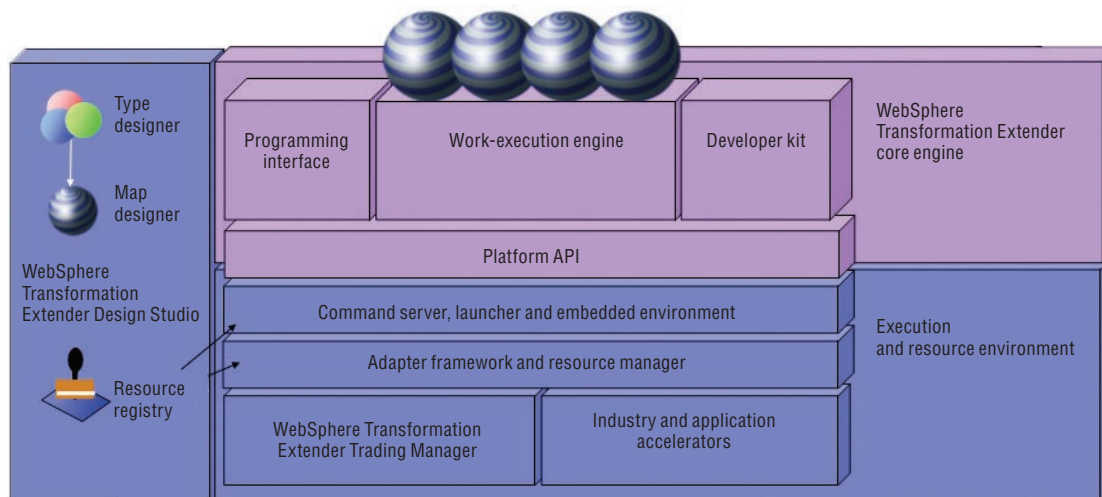
IBM

WebSphere® software

IBM WebSphere Transformation Extender, Version 8.1

Highlights

- **Enables integration developers to visualize and transform complex data without coding**

- **Handles large, semi-structured, hierarchical and nested data such as EDI documents**

- **Provides a library of ready-to-use, frequently required functions**

- **Supports a wide variety of industry-standard exchange formats featuring financial services and healthcare**

- **Integrates with IBM WebSphere Enterprise Service Bus offerings**

- **Connects with a range of file- and message-based transport protocols including WebSphere MQ**

- **Runs stand-alone in message and event-driven IT architectures, or embedded with applications and J2EE servers**

- **Runs on the IBM z/OS platform and works as an excellent companion to WebSphere MQ and WebSphere Message Broker**

- **Provides a universal transformation engine for your SOA**

To gain competitive advantage in today's marketplace, your organization needs to be agile and innovative. And integrating all the information in your disparate business systems demands an infrastructure that is sophisticated and flexible enough to accommodate rapidly evolving business demands. For many integration systems, complex data structures require significant programming to process. You need to avoid the maintenance overhead of duplicating specialized deployment and data-normalization function across projects and infrastructures.

WebSphere Transformation Extender component overview

Flexible, portable and universal

IBM WebSphere® Transformation Extender can deploy the same transformation, validation and routing assets in virtually any infrastructure or operating environment, delivering the benefits of the "develop once, deploy anywhere" proposition. You can embed the transformation engine in C, COBOL and Java™ applications. Or you can embed the engine inside a Java 2 Platform, Enterprise Edition (J2EE) application server. The engine is also available as a stand-alone broker, connecting your enterprise business applications and data stores. Mediate between application-specific formats and industry-standard exchange formats.

Choosing WebSphere Transformation Extender gives you a simple entry point to the adoption of service oriented architecture (SOA), while helping to minimize any worries about business disruption and upheaval. IBM's SOA approach recommends a top-down, enterprise vision and architecture to help ensure consistency, while enabling bottom-up implementation — project by project, service by service. No matter where you are in the SOA life cycle, WebSphere Transformation Extender performs a key role, whether you are just starting out with a small project, or you have already implemented your SOA.

With WebSphere Transformation Extender, you can integrate the elements necessary to create composite applications from otherwise stand-alone and monolithic applications. This capability helps you create flexible and robust business solutions composed of coarse- and fine-grained service components that use — not replace — your existing IT investments.

Packaged to address your integration needs

IBM is making WebSphere Transformation Extender available as a number of base editions tailored to the functions needed to complete your projects. Each edition comes with a broad range of technology adapters to facilitate application integration. File handling is built into the engine. Adapters include support for IBM WebSphere MQ, Java Message Service (JMS), File Transfer Protocol (FTP) and other transport protocols.

IBM WebSphere Transformation Extender (for application programming)

You can use this edition to deploy transformations in custom programming environments. It contains the core engine with C, Java, Enterprise JavaBeans (EJB) and COBOL application programming interfaces (APIs). These are available to integrate the transformation engine into your application-server environment or embed its libraries in a program. Use this edition when you want to call directly from your application into the transformation engine. Also use this edition to deploy with IBM WebSphere Enterprise Service Bus or IBM WebSphere Process Server.

IBM WebSphere Transformation Extender with Command Server

With this edition, you can control how a transformation is implemented by calling the transformation engine directly from a command line, shell script or timer. This edition is often used to enhance batch environments where minimal intrusion is required and no programming APIs are required.

IBM WebSphere Transformation Extender with Launcher

This edition includes the capabilities of WebSphere Transformation Extender with Command Server and adds a runtime environment that synchronizes and controls complex data transformations. The launcher activates transformations based on triggers, which can be a file creation, a message arriving on a WebSphere MQ queue, a database management system (DBMS) trigger, a timer or many other options, as well as combinations of triggers.

IBM WebSphere Transformation Extender for Message Broker

This edition delivers WebSphere Transformation Extender transformation as a node inside IBM WebSphere Message Broker, enabling it to be called from within any message flow. WebSphere Message Broker users can take advantage of the advanced capabilities of WebSphere Transformation Extender when processing in-flight messages.

Design tools

WebSphere Transformation Extender tools include WebSphere Transformation Extender Design Studio, which is required to develop transformations and metadata, as well as an optional development kit for developing custom interfaces to WebSphere Transformation Extender for your environment.

IBM WebSphere Transformation Extender Design Studio

WebSphere Transformation Extender Design Studio is an integrated development environment (IDE) with a GUI where transformations and metadata are developed, imported,

tested and performance-tuned. No coding is required. Mapping and validation rules are assembled using an extensive library of functions. After these processes are complete, the transformation is moved to the base-edition host system for system test and production implementation.

IBM WebSphere Transformation Extender SDK

WebSphere Transformation Extender Software Developer Kit (SDK) is a package of the APIs such as C, Java, EJB and COBOL, separate from the WebSphere Transformation Extender base edition. With the SDK, you can directly embed WebSphere Transformation Extender in your Java or C application or server, and also develop custom adapters for WebSphere Transformation Extender and deploy them in any base edition.

Mainframe application integration and workload scalability

WebSphere Transformation Extender can transform and validate on the mainframe all of your business documents (purchase orders, insurance claims and more) from z/OS application formats — including COBOL, IBM IMS™ and IBM DB2® — into other required formats. Individual transactions can be split out from a single electronic data interchange (EDI) document. Individual sales orders can be generated and reconsolidated into an EDI document. The transformation engine can be deployed under the transaction control of IBM CICS® or IMS, can be administered using standard IBM zSeries® tools, and integrates seamlessly into existing production procedures.

Industry compliance and rapid return on investment

To help you gain the agility you need to quickly take advantage of market opportunities, the WebSphere Transformation Extender family provides a wide range of industry- and application-specific assets for use with the transformation engine that can help accelerate your time to value, and help ensure compliance and validation with the latest industry data standards, while integrating a range of packaged applications.

Industry accelerators include:

- *IBM WebSphere Transformation Extender Pack for EDIFACT*
- *IBM WebSphere Transformation Extender Pack for X12*
- *IBM WebSphere Transformation Extender Pack for EANCOM*
- *IBM WebSphere Transformation Extender Pack for ODETTE*
- *IBM WebSphere Transformation Extender Pack for TRADACOMS*
- *IBM WebSphere Transformation Extender Pack for SEPA*
- *IBM WebSphere Transformation Extender Pack for SWIFTNet Fin*
- *IBM WebSphere Transformation Extender Pack for SWIFTNet Funds*
- *IBM WebSphere Transformation Extender Pack for HIPAA EDI*
- *IBM WebSphere Transformation Extender Pack for HL7*
- *IBM WebSphere Transformation Extender Pack for NCPDP*

Packaged application accelerators include:

- *IBM WebSphere Transformation Extender Pack for PeopleSoft Enterprise*
- *IBM WebSphere Transformation Extender Pack for SAP R/3*
- *IBM WebSphere Transformation Extender Pack for SAP XI*
- *IBM WebSphere Transformation Extender Pack for Siebel*

Options for B2B, open standards, security and managing events

WebSphere Transformation Extender is an integration enabler for business-document exchange with trading partners by mediating in-house and industry-standard document formats, triggering events and interfacing with complementary business-to-business (B2B) products. WebSphere Transformation Extender options embrace Web-services standards, B2B security and event management.

IBM WebSphere Transformation Extender Trading Manager

This application enables you to manage and control the B2B integration of partner relationships and message flow. WebSphere Transformation Extender Trading Manager users can audit, control, monitor and view the entire B2B integration environment across the extended enterprise with security-rich data exchange, fully integrated with back-end systems. WebSphere Transformation Extender Trading Manager includes two components: partner manager (a graphical client for administering partner and trade-link information) and message manager (a runtime system that manages integration of inbound and outbound partner messages). WebSphere Transformation Extender Trading Manager requires WebSphere Transformation Extender with Launcher Edition with an EDI or HIPAA pack. You can also integrate WebSphere Transformation Extender Trading Manager with IBM WebSphere Partner Gateway for AS1 and AS2 channel support to provide an end-to-end B2B integration environment.

IBM WebSphere Transformation Extender Pack for Web Services

This option extends built-in capabilities with the ability to send Web-services requests to an SOA service provider directly from a transformation. WebSphere Transformation Extender Pack for Web Services works with any base edition.

IBM WebSphere Transformation Extender Security Collection

This option provides additional adapters to encrypt and decrypt data according to many popular standards. Adapters included are Secure Multipurpose Internet Mail Extensions (S/MIME), Secure Sockets Layer (SSL) and OpenPGP. WebSphere Transformation Extender Security Collection works with any base edition.

IBM WebSphere Transformation Extender Launcher Agent

This option adds an inbound HTTP agent for WebSphere Transformation Extender that enables WebSphere Transformation Extender with Launcher to listen and respond to HTTP requests. WebSphere Transformation Extender Launcher Agent requires the IBM WebSphere Transformation Extender with Launcher base edition.

For more information

To learn more about the IBM WebSphere Transformation Extender family of products, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/integration/wtx

To join the Global WebSphere Community, visit:

www.websphere.org

IBM WebSphere Transformation Extender, Version 8.1 at a glance

Platform support

IBM AIX®
- IBM AIX 5L™, Version 5.2 or 5.3
- IBM System p™ or IBM RS/6000® models

HP-UX
- HP-UX 11i, Version 1 and 2 (PA-RISC) or HP-UX 11i, Version 2 (Itanium®)
- Hewlett-Packard HP-9000 (PA-RISC) servers
- Hewlett-Packard HP-Integrity (Itanium) servers

Linux
- Red Hat Enterprise Linux®, Version 3 and Version 4 for x86 platforms
- SUSE Linux Enterprise, Version 9
- IBM System x™ and Intel® technology-based systems (or equivalent), from various manufacturers

OS/390 and z/OS
- Batch, CICS Transaction Server, IMS/DC: IBM OS/390®, Version 2.10 or IBM z/OS®, Version 1.4 or later
- IBM System z™ servers

Sun Solaris Operating Environment
- Sun Solaris, Version 9 and Version 10
- Sun SPARC servers

Windows
- Microsoft® Windows® 2000 with Service Pack (SP) 1 and SP2
- Windows 2003 Server Standard and Enterprise
- Windows XP Professional
- System x and Intel technology-based systems (or equivalent), from various manufacturers