Simplify data transformation with IBM Transformation Extender

Universal transformation for high-volume, complex and industry-standard transactions

Highlights

- Provides a single, universal transformation solution designed to eliminate the need for multiple data transformation tools

- Offers flexible deployment options across your IT infrastructure

- Accelerates the implementation of new industry-standard data formats with out-of-the-box capabilities

- Solves complex data transformation problems without requiring the use of scripting languages

The different data formats generated and consumed across an organization's IT systems—coupled with the multitude of data formats, industry standards and requirements of customers, suppliers and partners—can prove difficult and costly to support. And data transformation demands are far from static—changing business requirements, customer demands and industry standards create ongoing churn and discontinuity that must be managed.

Too many organizations attempt to solve this problem with the disparate transformation tools within their internal applications, enterprise service buses (ESBs) and business-to-business (B2B) gateways. However, none of these tools is likely to offer sufficient breadth of capability to comprehensively address the issue, and the use of multiple tools inhibits reusability of both translation assets and skills.

IBM Transformation Extender software (formerly known as Web-Sphere Transformation Extender) helps automate the complex transformation and validation of data between the multitude of different data formats and standards in use across a typical organization. IBM Transformation Extender software enables organizations to deploy new business services more quickly, facilitates the reuse of information, and helps improve the quality and speed of information flow throughout the enterprise.

Offering a single transformation solution for your enterprise

IBM Transformation Extender software enables organizations to deploy a single transformation solution that works across their service-oriented architecture (SOA), B2B and ESB assets. Reusability is at the heart of the benefits of SOA, and transformation is one of the most commonly invoked services. By deploying a universal transformation solution, organizations can leverage this reusability instead of incurring the costs, redundancies and delays caused by the use of multiple transformation tools.

With IBM Transformation Extender software, organizations can reuse transformation artifacts. A map that runs on an IBM DataPower® appliance can also run on IBM Integration Bus software, on IBM Sterling B2B Integrator software or from JCL on a mainframe. IBM Transformation Extender software's type trees are also highly reusable artifacts. Stakeholders across the enterprise can agree on both the shape and pattern of any data going through the integration architecture. Semantic rules protect downstream systems from contamination without requiring organizations to write a lot of error-trapping code for each target system. Finally, IBM Transformation Extender software allows for the reusability of skills. Most data integration scenarios require data transformation, and it is more efficient to have developers learn a single tool that can be applied in just about any situation instead of maintaining fluency with multiple tools.

Addressing your organization's needs with flexible deployment options

IBM Transformation Extender software includes the following components:

- IBM Transformation Extender for Application Programming software is used to deploy transformations in custom programming environments and third-party application servers, allowing calls to be placed directly from applications into the transformation engine.
- IBM Transformation Extender with Command Server software offers a powerful command-line-driven environment for controlling the execution of a transformation and allows the transformation engine to be called directly from JCL or a command line, shell script or timer. It can be ideal for extending an existing application or batch process with minimal intrusion.
- IBM Transformation Extender for Integration Servers software extends the transformation engine for use across an organization's integration infrastructure, including Sterling B2B Integrator software, IBM Integration Bus software and IBM WebSphere Application Server software.
- IBM Transformation Extender with Launcher software packages the transformation engine with a stand-alone-event server runtime environment, which activates transformations based on events to support many complex event processing scenarios.
- IBM Transformation Extender Hypervisor Edition software allows the transformation engine to be deployed directly by IBM Pure Systems or in virtualized environments, enabling the use of IBM Transformation Extender software within private cloud architectures.

Accelerating the transformation of industry-standard data formats

IBM Transformation Extender Industry Pack solutions provide out-of-the-box capabilities to integrate a range of industry-standard data formats with an enterprise infrastructure. Industry packs enable developers to accelerate the delivery of transformation solutions by providing predefined type tree templates; conversion maps; and, in many cases, validation maps and tools that reduce risk in projects with mandatory and advisory guidelines. IBM Transformation Extender Industry Pack solutions provide organizations with an infrastructure that helps them:

- Support compliance with government and industry mandates
- Control administrative costs
- Streamline business processes
- Facilitate accuracy and timeliness of information
- Adapt to new technologies as they emerge
- Integrate multiple systems and standards
- Automate cross-organizational exchanges

Industry Packs available for use with IBM Transformation Extender:

- Financial services
    - Financial Information eXchange (FIX) Protocol
    - National Automated Clearing House Association (NACHA)
    - Single Euro Payments Area (SEPA)
    - Society for Worldwide Interbank Financial Telecommunication (SWIFT)
- Healthcare
    - Health Insurance Portability and Accountability Act Electronic Data Interchange (HIPAA EDI)
    - Health Level Seven (HL7)
    - National Council for Prescription Drug Programs (NCPDP)
- Insurance
    - Association for Cooperative Operations Research and Development (ACORD)
- EDI
    - American National Standards Institute X12
    - The United Nations rules for Electronic Data Interchange for Administration, Commerce and Transport (EDIFACT)
    - Trading Data Communications Standard (TRADACOMS)

Solving complex data transformation needs

Data transformation is often difficult and unwieldy—the complexity of an organization's applications environment, business needs, customer demands, industry standards and government mandates come together and must be dealt with in the transformation solution.

IBM Transformation Extender software enables organizations to manage the complexities of data transformation without having to resort to scripting languages. Everything in an IBM Transformation Extender map can be defined in the graphical tooling, which results in reduced up-front development costs; plus, the software can deliver even greater value by driving down maintenance expenses.

The IBM Transformation Extender engine executes maps built from an extensible library of ready-to-use functions. These functions can be combined using graphical tools to validate structure and content logic of complex XML and non-XML data formats.

With IBM Transformation Extender software, organizations no longer have to sort through hidden code. There are no

global variables with values that could be changed by subroutines. The range of stylistic variances that can impede the understanding of function can be significantly reduced. If an organization needs to know why a bad result is occurring in its output data, the result can be pinpointed to a single map location—the rule that is assigned to that data object.

Why IBM?

IBM is a world leader in integration software and solutions and can deliver a broad and deep range of services and solutions addressing an organization's internal and external integration requirements. IBM Transformation Extender software is IBM's universal transformation solution, providing transformation capabilities across the IBM integration portfolio. By helping automate the complex transformation and validation of data between different data formats and standards, IBM Transformation Extender software enables organizations to deploy new business services more quickly, facilitates the reuse of information, and helps improve the quality and speed of information flow throughout the enterprise.

For more information

To learn more about IBM Transformation Extender software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/integration/wdatastagetx/index.html