



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Features and Functionality



@business on demand.

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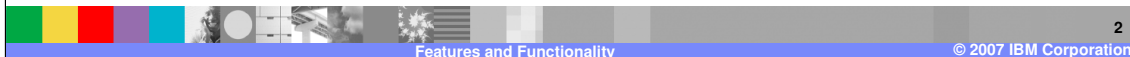
This presentation highlights the features and functionality provided with IBM WebSphere Data Interchange.

Major Features of WebSphere Data Interchange

Sophisticated mapping and meta-data tools which allows a customer / business / trading partner to customize the EDI document to conform to a trading partner agreement - an implementation guide which specifies the detail of the location and format of data in business transactions such as purchase orders, invoices, and healthcare claims.

Robust, high performance data transformation engine optimized for EDI. WDI supports a variety of EDI and Industry Standards for exchanging data between businesses, such as trading partners. It supports XML and raw data formats - flat file record structures, as well as EDI.

Flexible transport and routing capability specifically designed for EDI customers to allow for the splitting of batched data into deliverables by trading partner, or data format. EDI is inherently a batch of data which may be utilized in a real-time situation. WDI accounts for the needs of both these characteristics.



The major features of WebSphere Data Interchange (WDI) are sophisticated mapping and meta-data tools which allows a customer, business, trading partner to customize the electronic data interchange (EDI) document to conform to a trading partner agreement. WDI supports a variety of EDI and Industry standards for exchanging data between businesses including XML and application data or raw formats. It is specifically designed for EDI customers to allow flexible transport and routing capability.

Functionality Highlights

Multi-process capable

Support for concurrent users and applications

Compiled maps

Byte-code representation
Reduces Input/Output operations, improves

One-Pass Inbound translation

adds mapping flexibility

Execute from command line or API

Application program interface (API) to integrate directly with your application

Event driven

WebSphere MQ trigger program included with WDI
Multiplatform version
CICS (z/OS version)

Continuous throughput API

High performance option, start and forget

Mapping support includes:

Any-to-any mapping
XML Schema/DTD import
Literals/constants
Accumulators, arithmetic and logical operations
Qualified loop and element mapping
Hierarchical loop mapping
Envelope field mapping
User exits at the field level
User-defined translation and validation tables
Boolean logic
Deferred Mapping, Special Logic
DIMAPSWITCH, DIMAPCHAIN

Trading Partner Maps

Specific; One to many (shared); Multiple versions
Migration – Between Standards & Systems

EDI Reporting and Auditing

Trading partner relationships including
transaction sets used
last communication exchange
Envelope and transaction status Exception information
SAP status for online and batch processing
Management (statistical) reporting

These are the feature and function highlights of WebSphere Data Interchange.

Server Function / Feature

Server Functions

Command Processor

- PERFORM options

Translation

- Send / Receive, EDI centric
- Data Transformation, any-to-any
- Error Filtering

Routing

- WDI Adapter
- Data Format Routing
- Trading Partner Routing
- Command Chaining

Communications

- Information Exchange via Expedite
- Other Value Added Network (VAN) capability
- Point-to-point
- WebSphere MQ (WebSphere MQ)
- Trading Partner Interchange (TPI),
- WebSphere Business Integrator (WBI)-
Connect via WMQ
- WBI Message Broker using WMQ

Document Store

- Delayed Enveloping
- Delayed Translation
- Error determination
- Error correction
- Functional Acknowledgment Reconciliation
- SAP Status Update



The server functions include command processor, translation, routing, communications, and the document store.

Server Function / Feature

Server Functions (continued)

CICS specific functions

- TD Queue processing

- TS Queue processing

- IBM VAN connection and status via Expedite CICS

Interfaces

- Call utility (server)

- Call translator API

- Automatic Transaction Initiation

- Continuous Receive with and without Hot DI

Monitoring

- Management Reporting

- Transaction Activity Reports

- Network Activity

- Transaction Data Extract

- Trading Partner Capability

- Event Log Reports

- Reports / Query

Administration

- Event Log Purge and Remove

- Document Store Purge and Remove

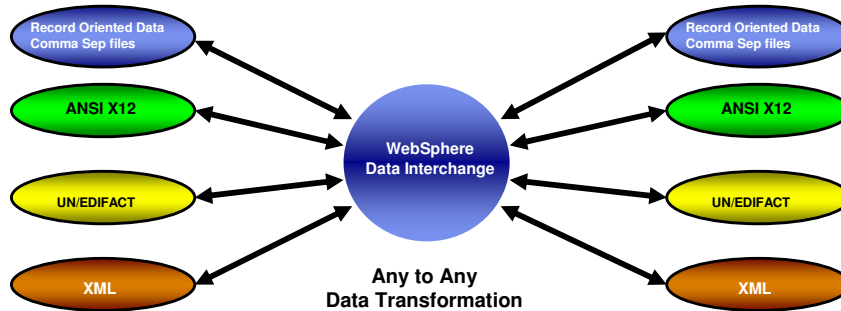
- Start / Stop Continuous Receive

- Export / Import of Metadata



Additional server functions include CICS interfaces and monitoring capabilities.

Translation Support



Standard	X12	UN/EDIFACT	Subsets	XML	ODETTE	UNTDI	Support Pack For HIPAA
WDI Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes



WebSphere Data Interchange supports a variety of standards for Electronic Data Interchange (EDI) including ANSI X12, EDIFACT, published industry subsets and XML Schemas. As an EDI subsystem, WDI provides status messages to update SAP.

WDI Client: Tooling and Administration

- Used to develop and manage your
 - ▶ Data Formats (application data definitions)
 - ▶ Standards
 - ▶ XML Schemas and DTDs
 - ▶ Maps
 - ▶ Profiles
 - ▶ Rules
 - Map wizard used to create new maps
 - Choose data transformation source/target
 - A map is a set of instructions to translate data from one format to another
 - Allows the description of meta-data format definition.
 - Maps are compiled for performance

An improved WebSphere Data Interchange Client provides support for target based mapping providing addition control no matter which direction the map is used for . The new Create Map Wizard also provides setup support for new Data Transformation maps.

User Interface Function / Feature

WDI Client User Interface Functions

Mapping

- Standards
- Data Formats
- XML DTDs
- Maps
 - Send / Receive
 - Data Transformation
 - Functional Acknowledgment
 - Validation

Profile Administration

- Trading Partner Management
- Communication Profiles
- Enveloping Profiles
- Grouping Profiles

Reporting

- Reports
- Queries

Operational View

- Event Log
- Document Store

Administration

- Preferences
- Systems
- Export / Import
- Release Migration



The WDI Client functions include mapping, profile administration, reporting, operational views, and administrative tasks.

Performance

WDI - Designed and Built for Performance

If the need for speed is the issue!

- ✓ Receive Maps EDI->Data Format process 12 MB transactions per day in a single thread
- ✓ Caching of objects to minimize DB2 accesses
- ✓ Memory reuse to minimize acquisitions
- ✓ Compiled maps

If size matters!

- ✓ DT Maps process 5 GB XML transactions
- ✓ Send / Receive Maps process 2 GB EDI transactions
- ✓ Paging of data and Nodes
- ✓ AMM Node reuse
- ✓ Options to restrict informational messages



WDI was designed and built for performance. Features that allow high volume translations are:

- Caching of objects to minimize DB2 accesses
- Memory reuse to minimize storage acquisitions
- Compiled maps are used instead of interpretive maps
- Small receive maps (EDI to application data format) have been shown to process 12 MB transactions per day in a single thread.

For large transactions, feature include:

- Paging of data and Nodes
- Reuse of abstract message model (AMM) Nodes
- User controlled options to restrict informational messages
- Some tests show the ability of a data transformation (DT) Map to process a 5 GB XML transactions, and
- Send / Receive Maps with the ability to process 2 GB EDI transactions

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