



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Integration with other WebSphere Products



@business on demand.

© 2007 IBM Corporation

This presentation provides an overview of IBM WebSphere Data Interchange integration with other WebSphere Products.

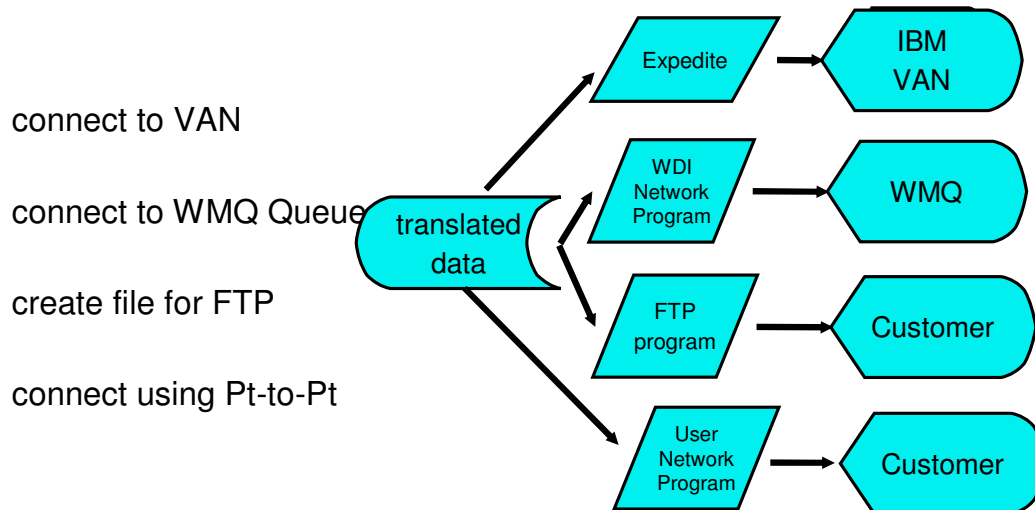
Agenda

- WDI Communications
- WDI Adapter Flow
- WebSphere Message Broker Integration
- WebSphere Process Server Integration
- Services Oriented Architecture
- Application Program Interface
- HIPAA Support Packs



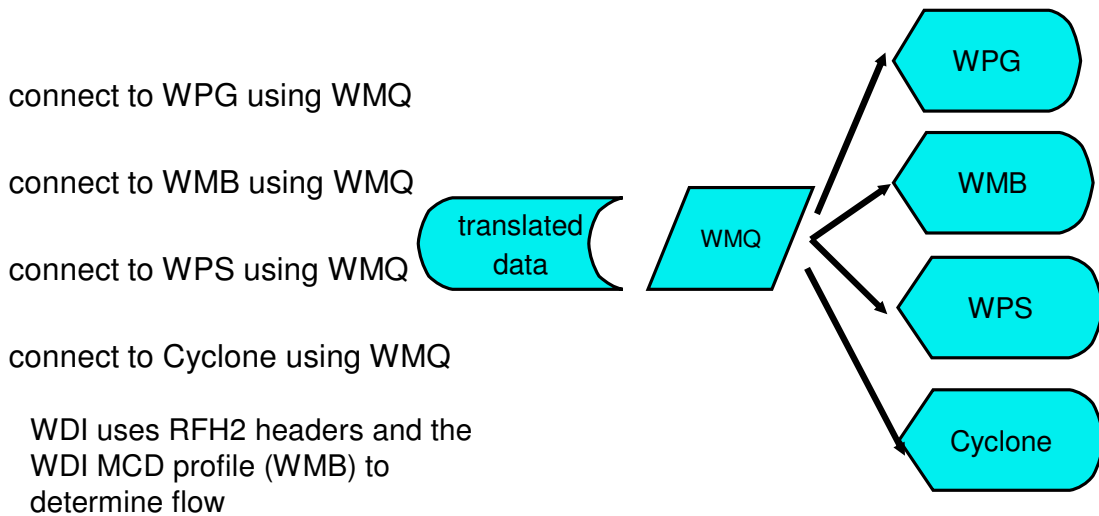
The presentation reviews WebSphere Data Interchange (WDI) communications, the WDI adapter flow, integration with WebSphere Message Broker (WMB) and WebSphere Process Server (WPS), Services Oriented Architecture (SOA), the WDI Application Program Interface (API), and HIPAA Support Packs.

Communications



WDI communications provides capabilities to connect to a Value Added Network (VAN), WebSphere MQ (WMQ), FTP, and point to point.

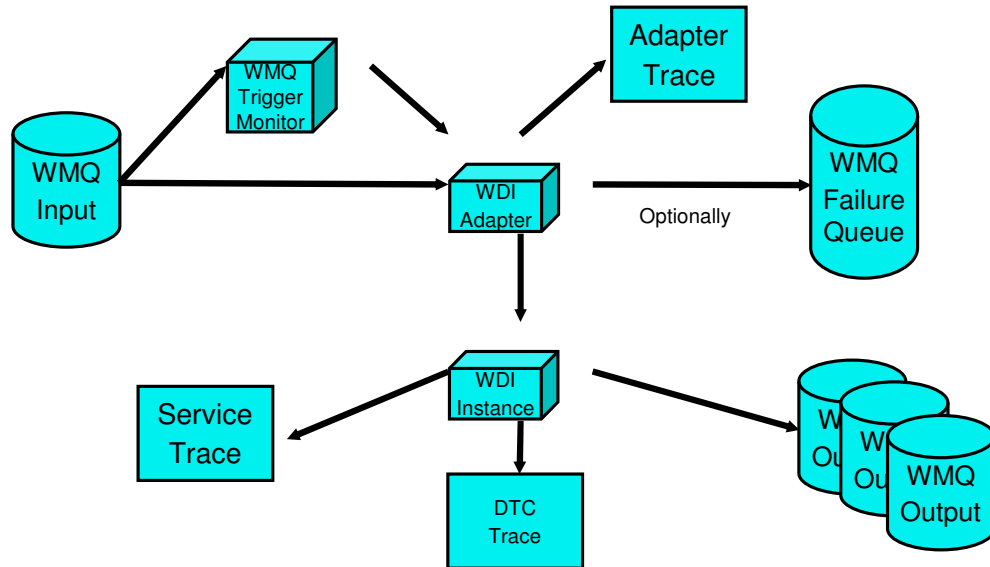
Communications



WDI can interoperate with WebSphere Partner Gateway (WPG), WebSphere Message Broker (WMB), and WebSphere Process Server (WPS) using WebSphere MQ (WMQ). It also can connect to Cyclone, a non IBM gateway.

WDI uses RFH2 headers and the WDI MCD profile (WMB) to determine flow.

Adapter Flow

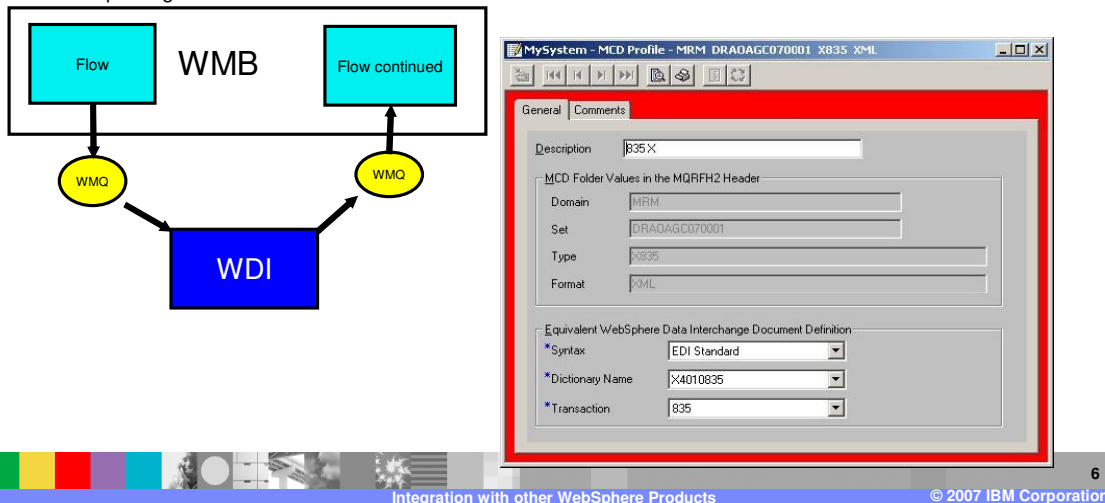


This is a diagram of the WDI Adapter message flow. WMQ triggering invokes the WDI MQ Adapter, which reads input from the WMQ queue and passes it to an instance of WDI. If a failure occurs the WDI Adapter writes the failed message to a designated WMQ Failure queue. Good output is written to WMQ output queues defined to WDI. WDI has several traces to aid in problem determination, including an Adapter trace to log the messages processed and Service and DTC traces to identify processing during translations.

WebSphere Message Broker Integration

Special WDI Consideration for Integration with WMB exists

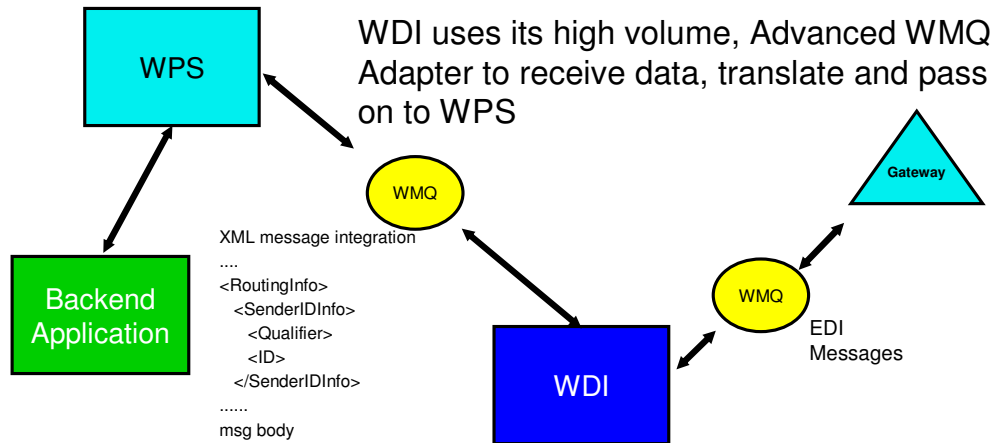
WMB outputs the message to a WMQ Queue, WDI reads the queue and using the WDI MCD profile supplies information needed for translation and then writes the translated message back to a queue, updating the RFH2 with WMB values



WebSphere Message Broker (WMB) outputs the message to a WMQ Queue, WDI reads the queue and using the WDI MCD profile supplies information needed for translation and then writes the translated message back to a queue, updating the RFH2 with WebSphere Message Broker values

WebSphere Process Server Integration

Integration with WPS is using WMQ, as is done in the HIPAA solution

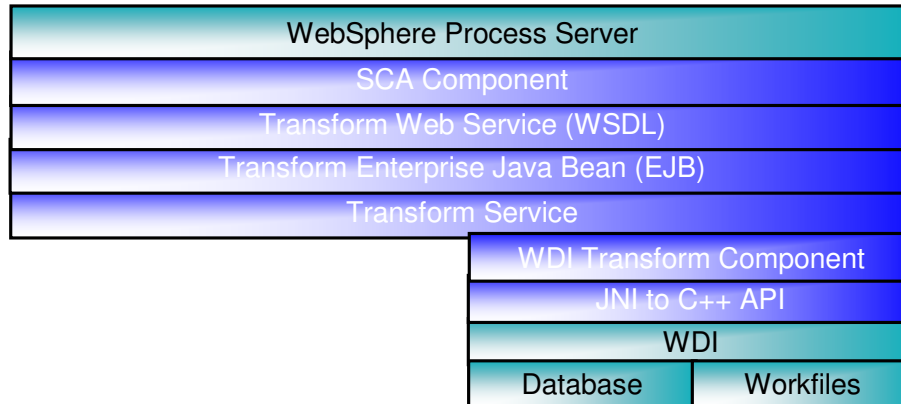


Integration with WebSphere Process Server (WPS) is done using WMQ, as is done in some HIPAA solutions.

WDI uses its high volume, Advanced WMQ Adapter to receive data, translate and pass on to WebSphere Process Server.

WPS can also invoke WDI as a service.

Services Oriented Architecture



This is a diagram showing the Services Oriented Architecture between WebSphere Process Server and WDI.

Business Problem / WPS Use Case

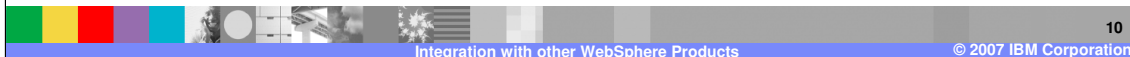
A customer has the need to translate flat file format purchase orders into EDI and send them to a Trading Partner. The Gateway used does not have EDI translation capability. The customer will also receive invoices from the Trading Partner and would like to convert them from EDI to XML and have them delivered to a backend business application. The trading partner wants a Functional Acknowledgment if the Invoice transaction fails. The customer wants a Functional Acknowledgment for each PO sent to the Trading partner so that delivery and acceptance is confirmed. POs over a day old are canceled.



This is a business problem scenario: A customer has the need to translate flat file format purchase orders into EDI and send them to a Trading Partner. The Gateway used does not have EDI translation capability. The customer will also receive invoices from the Trading Partner and would like to convert them from EDI to XML and have them delivered to a backend business application. The trading partner wants a Functional Acknowledgment if the Invoice transaction fails. The customer wants a Functional Acknowledgment for each PO sent to the Trading partner so that delivery and acceptance is confirmed. POs over a day old are canceled.

SOA Usage

- Using WebSphere Process Server (WPS), add EDI to the Business process
- Import the Build-time objects - Data Format, EDI Standard, and DT Map. Also included in the Import file is the Trading Partner definition, and Map Rule.
- Edit the DT Map and change ..., then save the Map and compile the Map Control String
- Send the PO data using WPS with WDI
- Review the WDI Document Store and see the PO awaiting acknowledgment, run the WDI Pending acknowledgment report
- Receive the Invoice using WPS with WDI
- Review the WDI Document Store and view the Acknowledgment that was sent
- Send a PO Cancel using WPS and WDI
- Manually Acknowledge the PO canceled, run the WDI Pending Acknowledgment Report



You can use WebSphere Process Server (WPS) to add EDI to your business process. You can import the build-time objects, edit and compile the data transformation (DT) map, send the purchase order (PO) using WPS with WDI, and track the status of the purchase order using the WebSphere Data Interchange document store.

You can receive the invoice generated by the purchase order using WPS with WebSphere Data Interchange and track the status of the invoice using the WebSphere Data Interchange document store.

If you need to cancel the purchase order, you can send a purchase order cancel using WPS and WebSphere Data Interchange and manually acknowledgement the purchase order cancel and track the status using the document store.

Application Program Interfaces

- Command (Utility) API
 - Via LINK, LOAD, XCTL
 - EDISERVR
- Send / Receive Translator API
- C++ API
 - Synchronous
 - Asynchronous
 - Remote
- Java Native API



WDI has a variety of means by which it can be invoked by other applications.

It has a Utility API that is typically used by COBOL programs to invoke WDI in CICS using LINK, LOAD, or XCTL commands.

It can run as a standalone task using EDISERVR in the MP world or in z/OS.

A special API for the Send / Receiver translator also exists. This is a low level interface to translation.

Higher level interfaces also exist for C++ and Java coders.

HIPAA Support Pack

- A "No Charge" support pac that provides
 - ▶ HIPAA standard - variation of X12
 - ▶ HIPAA transformation maps
 - ▶ HIPAA validation maps
 - ▶ SNIP Level 5 tables
 - ▶ support for embedded HL7 translation
 - ▶ WebSphere Business Integration Server Collaborations for Healthcare



Support for HIPAA implementations also exists as part of the base WDI product.

Trademarks, copyrights, and disclaimers

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM
IBM (logo)
e/Logo/business
AIX

CICS
Cloudscape
DB2
DB2 Universal Database

IMS
Informix
iSeries
Lotus

WMO
OS/390
OS/400
pSeries

Tivoli
WebSphere
xSeries
zSeries

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

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

Intel, ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

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

Linux is a registered trademark of Linus Torvalds.

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

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements and/or changes in the product(s) and/or program(s) described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

Information is provided "AS IS" without warranty of any kind. THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (e.g., IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2006. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.