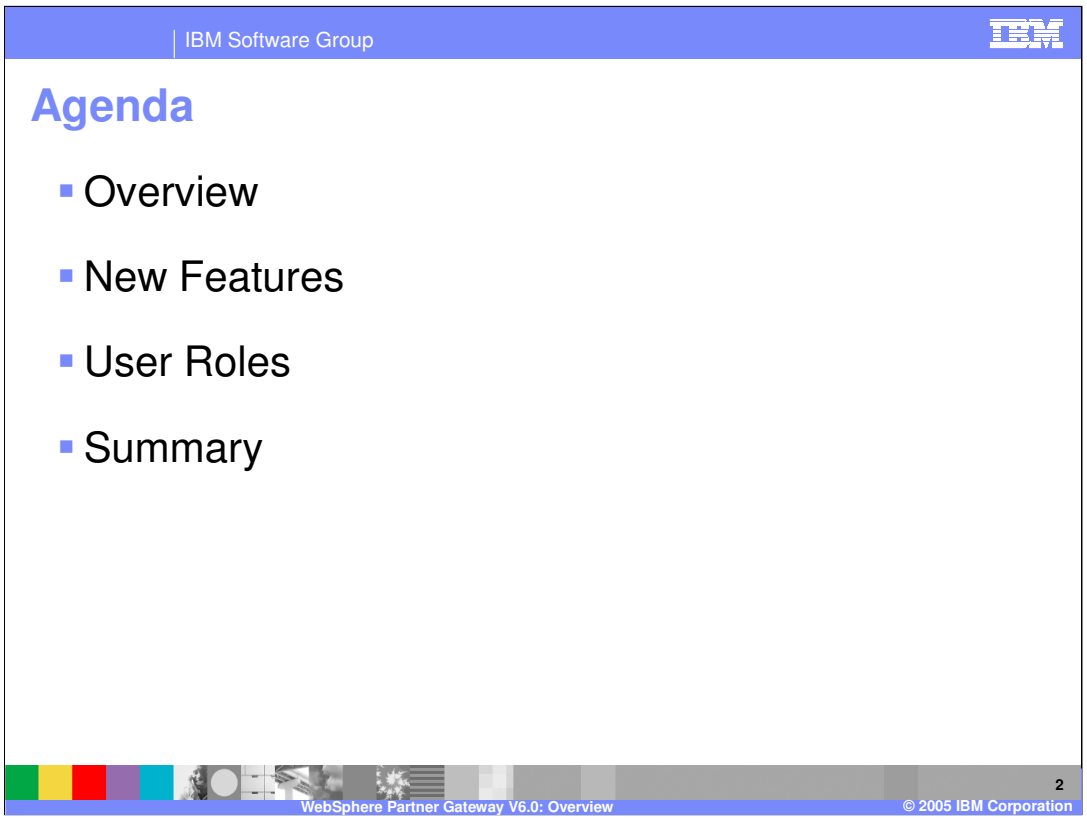
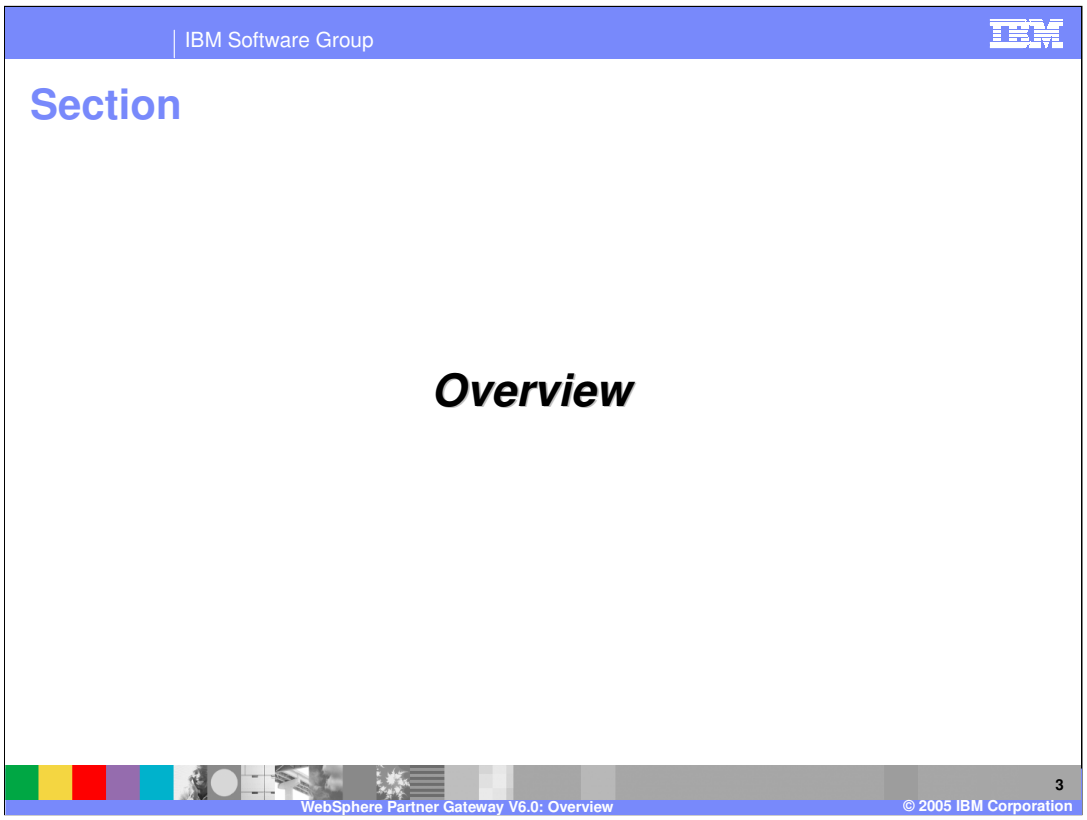
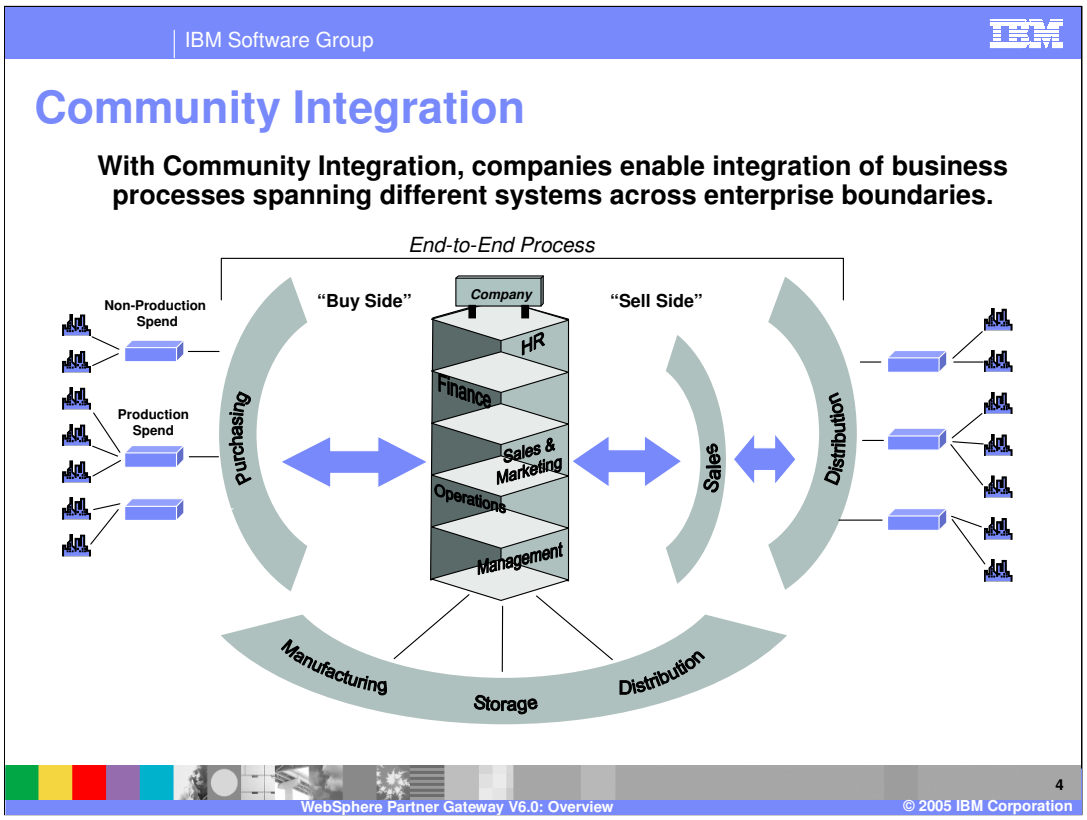
This presentation will provide an overview of WebSphere Partner Gateway V6.0 Advanced and Enterprise editions, including product packaging and primary new features.



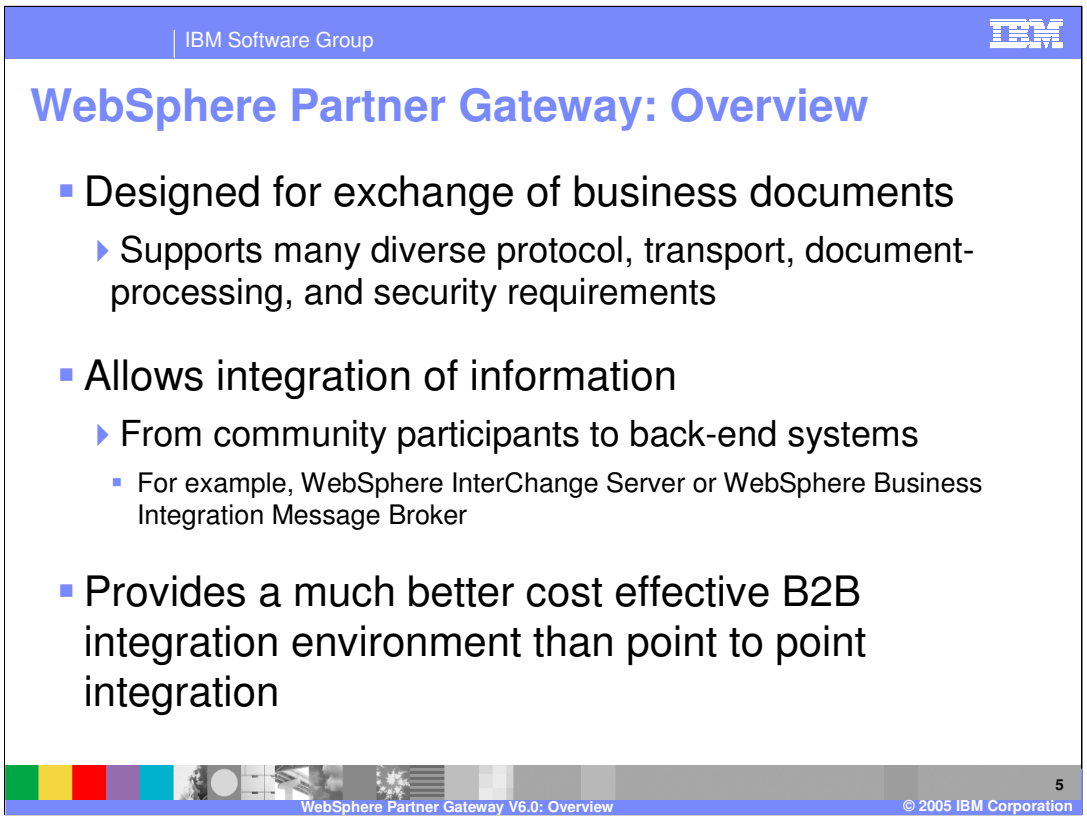
A product overview will be provided first, followed by a discussion of product packaging and new features. A discussion of user roles will also be presented.



This section will provide an overview of WebSphere Partner Gateway V6.0

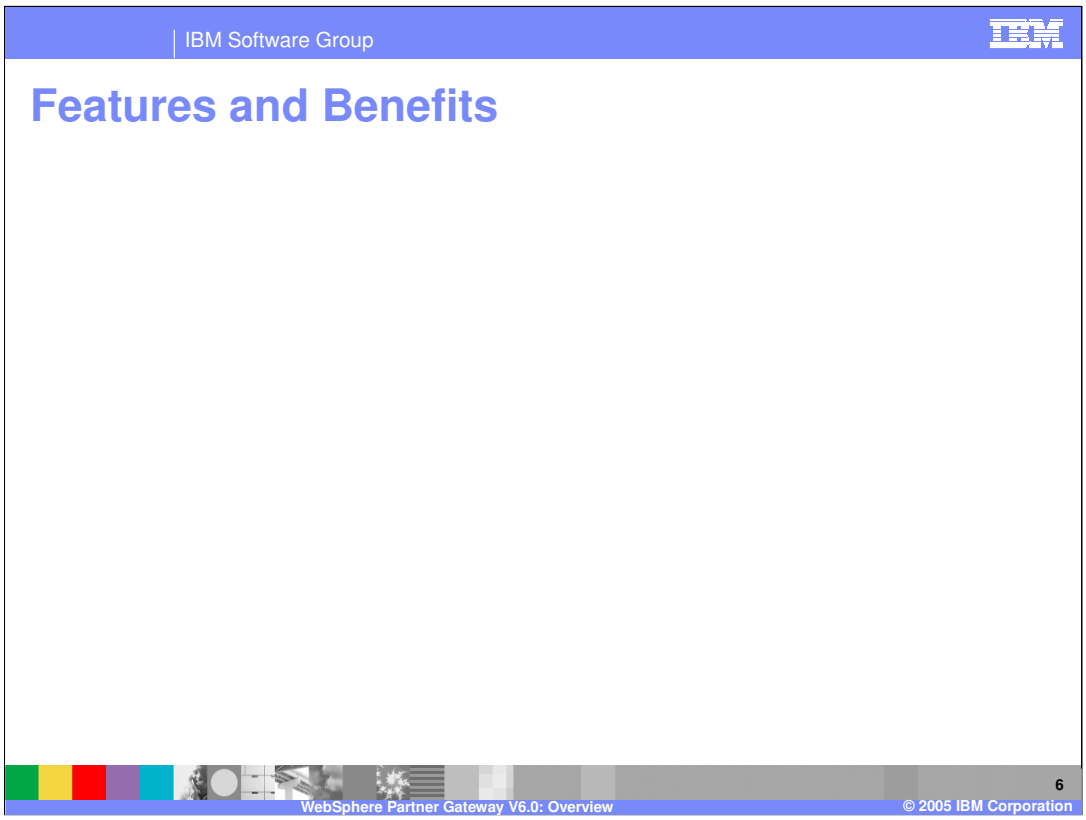


Shown here is the scope of B2B integration spanning different systems within an enterprise and across enterprise boundaries. This example shows B2B integration of the buy side and the sell side within an enterprise where all the business processes are integrated from the purchasing to the sales and distribution side.



WebSphere Partner Gateway provides the hub functionality for trading electronic documents in a B2B exchange.

Integration with back end systems such as Message Broker or WebSphere Interchange Server is also provided. In this case a trading partner sends a document to the hub to be processed by a back end system, and the processed document is later sent back to the same or to a different trading partner. WebSphere Partner Gateway provides a better, more cost effective solution for B2B integration than that provided by point to point integration. When coupled with the new native EDI capabilities discussed later, the solution provides even more advantages.

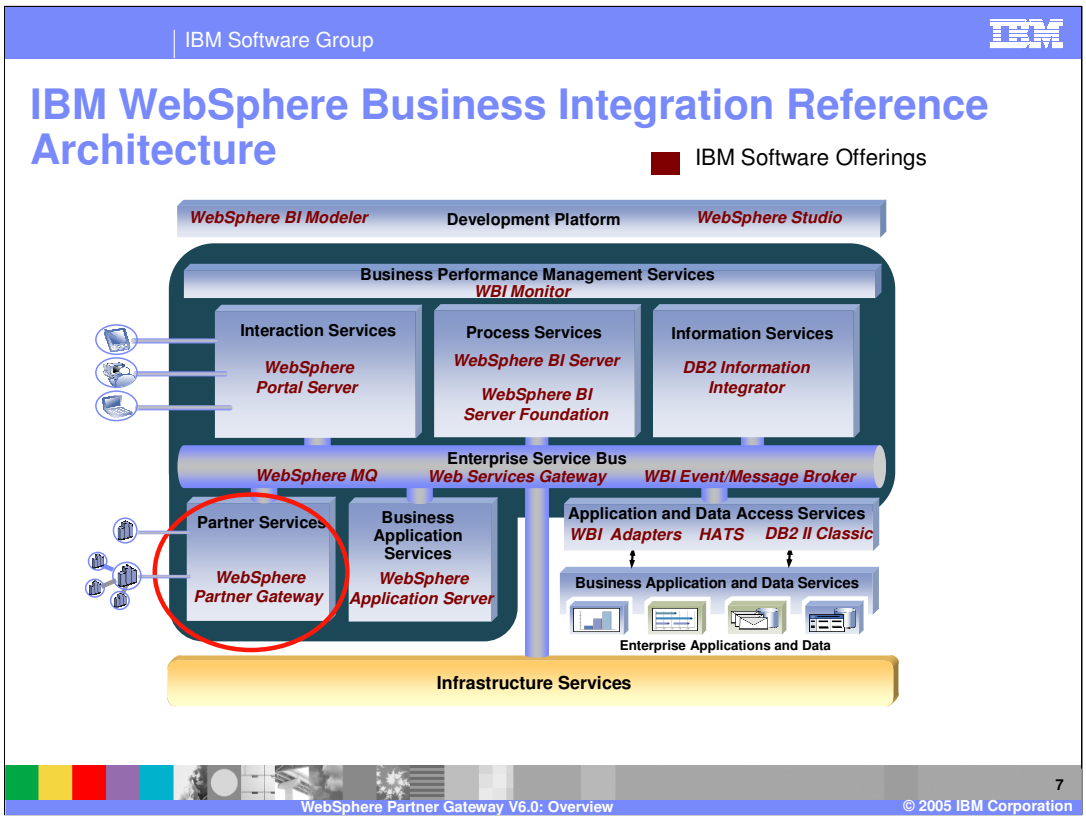


Features and benefits provided by WebSphere Partner Gateway include the following:

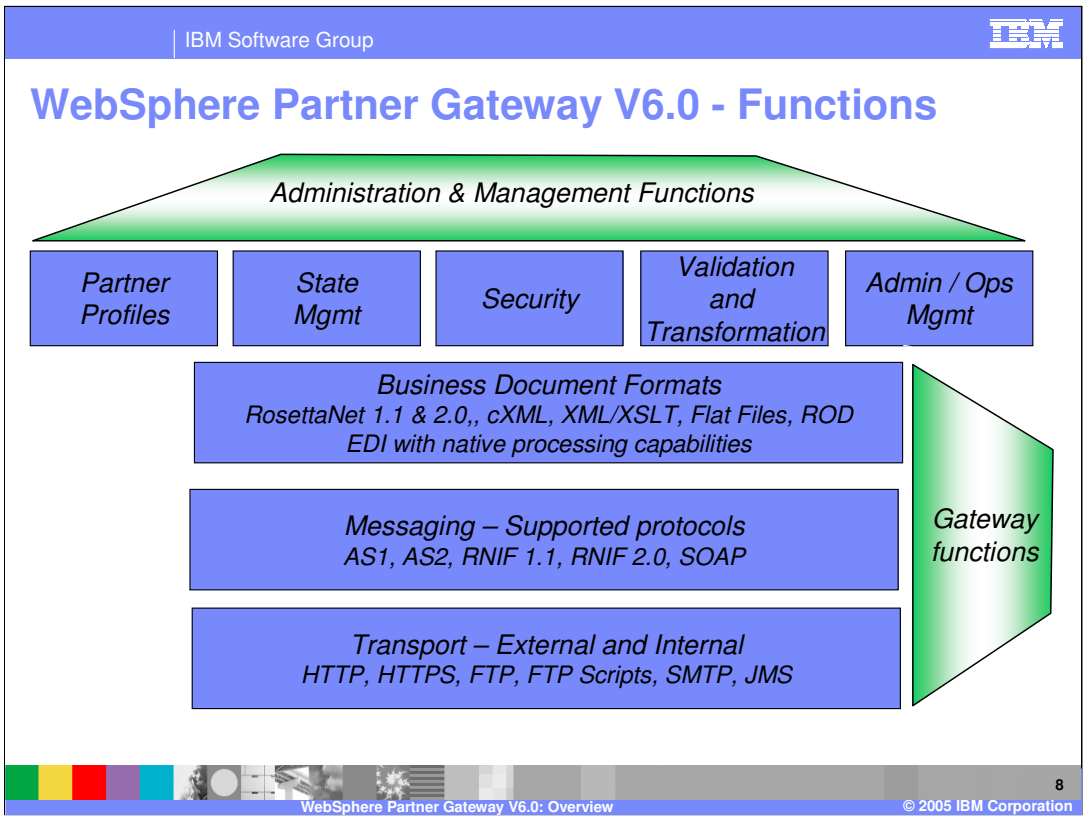
WebSphere Partner Gateway is built on top of the robust WebSphere Application Server V6 and supports several transport and packaging protocols, and data formats as listed on this slide. In addition, new native EDI capabilities have been added.

Advanced and Enterprise editions provide the scalability needed for large trading communities.

The console provides a role based administration User Interface for configuring and monitoring the hub.



The IBM Business Integration Reference Architecture is a complete and comprehensive architecture that covers all the integration needs of an enterprise. Its services are well integrated and are delivered in a modular fashion, allowing integration implementations to start at a small project level. As each additional project is addressed, new integration functions can be easily added, incrementally enhancing the scope of integration across the enterprise. The architecture also supports Service Oriented Architecture strategies and solutions and the middleware architecture itself is designed using principles of service orientation and function isolation.

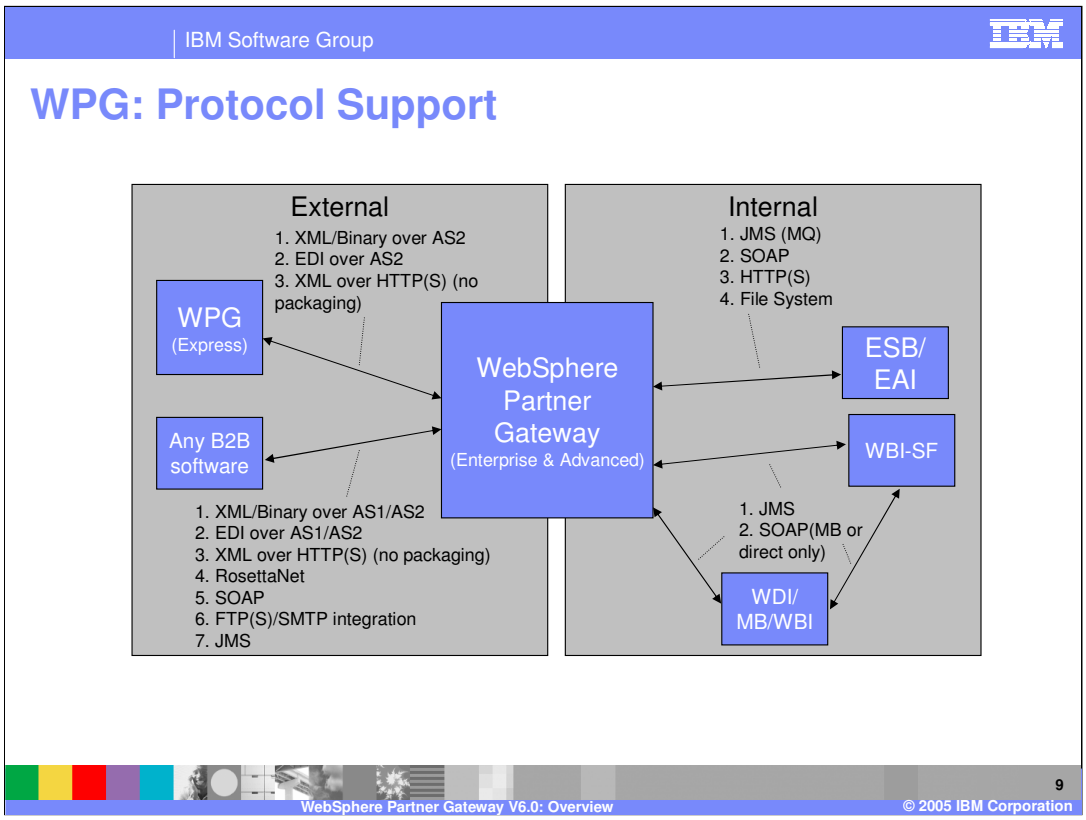


This slide provides a high level view of hub functionality.

Administration and management functions provided by the hub include the following:

1. Manage the trading partners and their profiles, including B2B capabilities, gateways, and users.
2. Management of security certificates used by the hub and the trading partners
3. State management of the documents being processed by the hub
4. Validation and transformation of documents
5. Other administration and operation functions

WebSphere Partner Gateway V6.0 supports several business document formats, including XML, custom XML, Flat files, Record Oriented data (ROD), and EDI. Another new capability of this release is native processing of EDI documents. The hub supports several messaging protocols, including AS1, AS2, RosettaNet, and SOAP over many transport protocols, including HTTP, HTTPS, JMS, FTP, and FTP scripting.

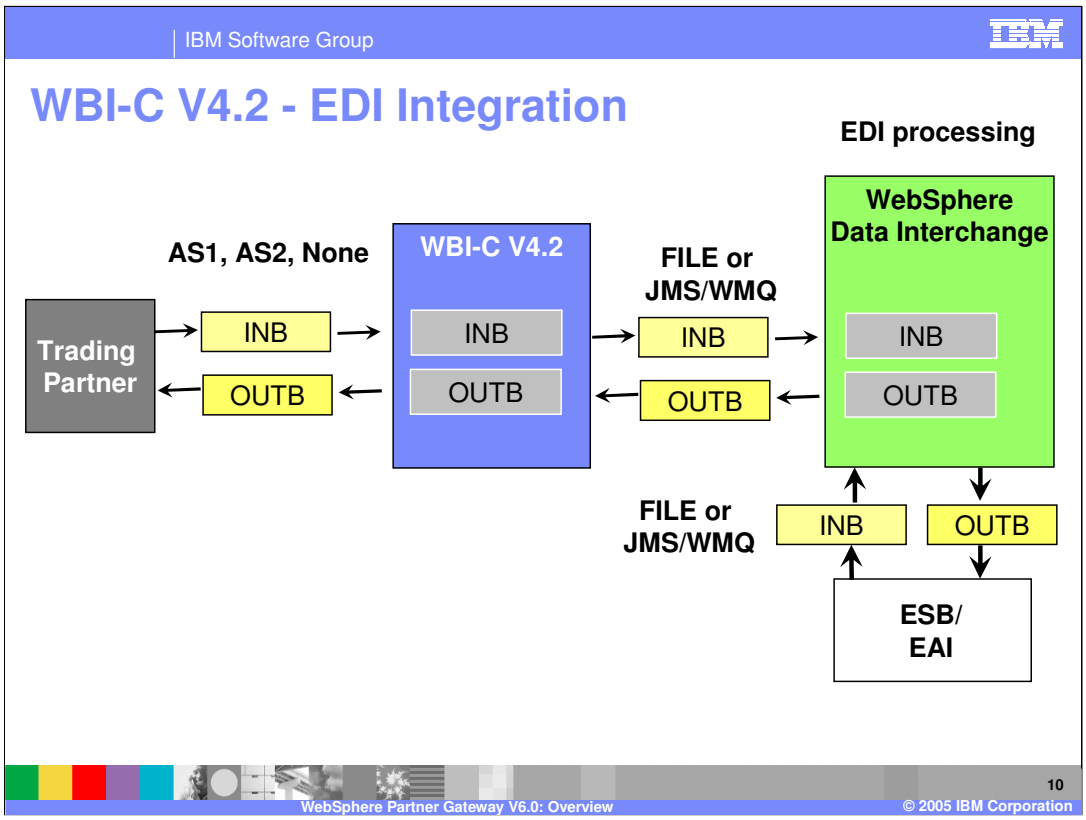


WebSphere Partner Gateway V6.0 Advanced and Enterprise editions support a number of transport protocols for document exchange between WebSphere Partner Gateway and internal application integration, including JMS, HTTP, and file system. XML, flat file, EDI, binary and RosettaNet are examples of document types exchanged between WebSphere Partner Gateway and internal applications.

WebSphere Partner Gateway Advanced and Enterprise edition can support many transport protocols including FTP, JMS, HTTP and business protocols such as EDI, XML, RN, and SOAP, whereas WebSphere Partner Gateway Express supports limited transport and business protocols.

All editions of WebSphere Partner Gateway can interact with other solutions as well, which will be a logical configuration for many partner interactions.

Internal integration supports JMS, SOAP, HTTP(S) and File System connections to the ESB or internal applications. The recommended connections to Server Foundation are JMS(MQ) or SOAP. If data mediation is needed, WDI or MB can be used for complex transformations and validation.



This page shows how the EDI functionality is handled by WebSphere Business Integration Connect.

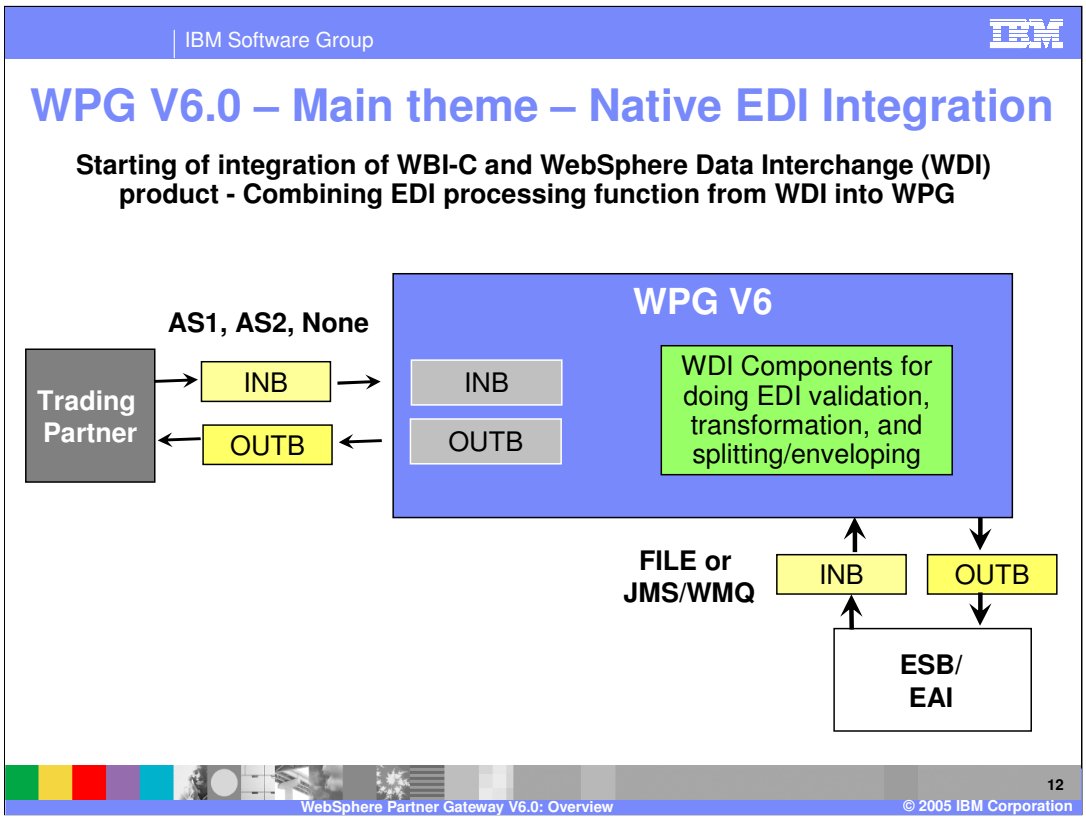
In the diagram, the document exchange with trading partners, including all aspects of authentication and handling of the physical transfer are handled by WebSphere Business Integration Connect. WebSphere Data Interchange (WDI) is responsible only for the processing of the EDI content of the documents, including validation, transformation, and splitting and enveloping.

In terms of integrating with EDI solution offerings (including WDI) the diagram shows the basic document flow into and out of the EDI transformation engine. In the use of WBI-C with non-WDI EDI transformation offerings that are already installed, the technology could interface to WBI-C using either JMS/MQ or Files.

WPG V6: Compatibility with Previous Versions

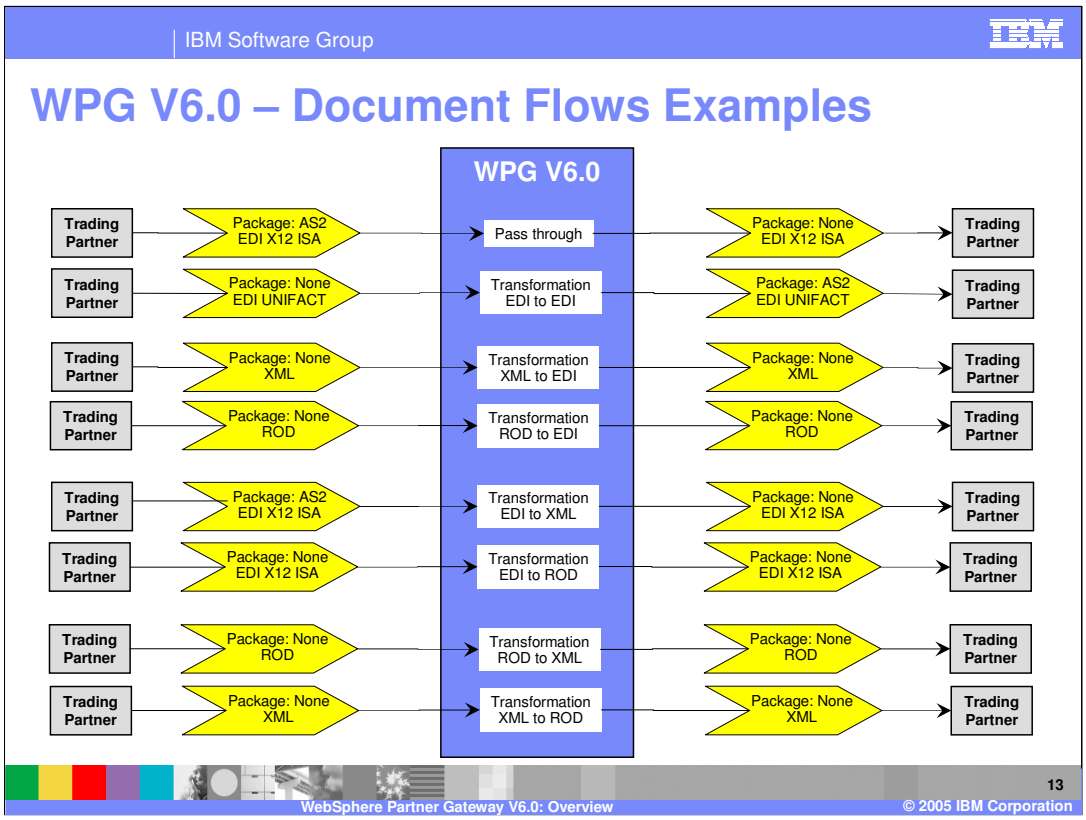
While adding significant new capabilities, the new WebSphere Partner Gateway V6.0 supports all the functions of the existing WebSphere Business Integration Connect V4.2.2 release

WebSphere Partner Gateway V6.0 adds new native EDI capabilities and other functions while retaining all the functions of WBI-C V4.2.



This page shows the merging of the functions of WBI-C and WDI into the new WebSphere Partner Gateway.

The new capabilities of WebSphere Partner Gateway allow processing of native EDI documents including validation, transformation, and splitting and enveloping. Most of the new functions in WebSphere Partner Gateway are focused on the native EDI capability.



In terms of integrating with EDI solution offerings, this diagram shows the basic document flow into and out of the EDI transformation engine.

Shown are some of the main document flows through WebSphere Partner Gateway for the ROD, XML and EDI document types. It also shows the types of processing and conversion of the documents possible with WebSphere Partner Gateway .

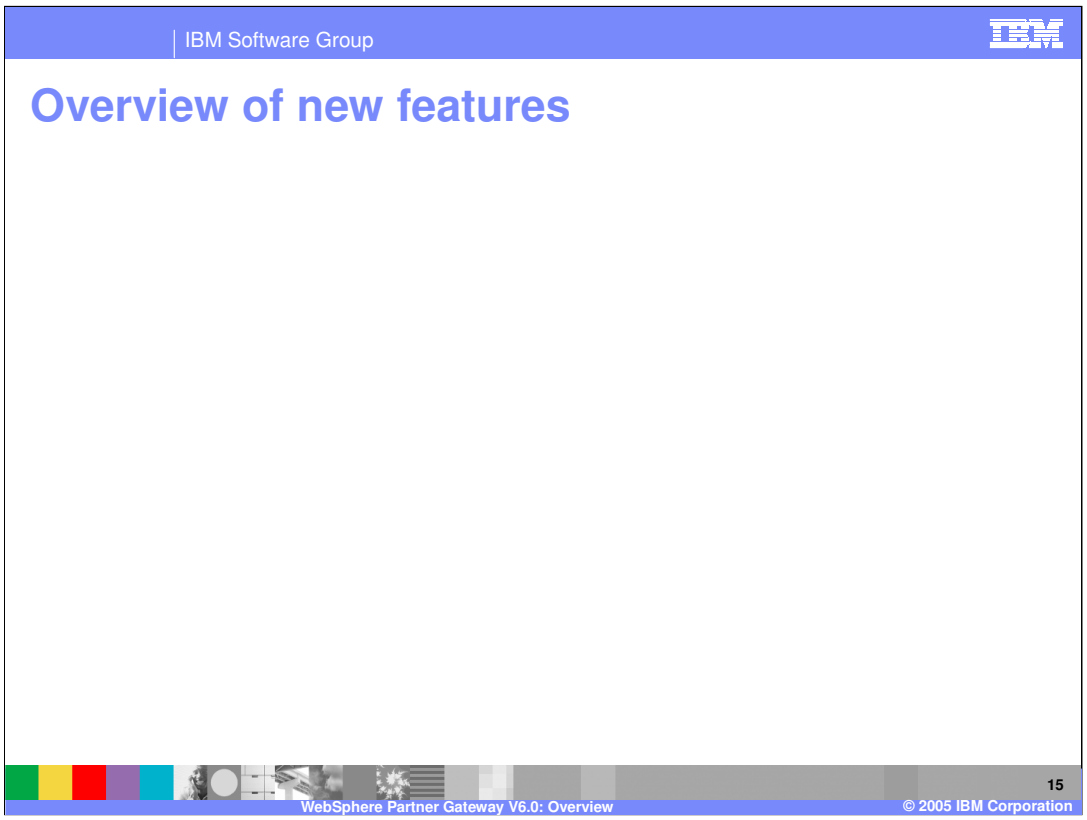
EDI continues to be important for many companies. Major investments have been made integrating it into their business process, so EDI continues to be a mission critical part of B2B strategies.

While XML is now in use by many companies, EDI has not been replaced but instead coexists with XML. EDI continues to evolve in response to new requirements from the enterprise, competitive pressures and industry initiatives such as HIPAA, an implementation of X12 standards and EDI over the Internet using protocols such as AS1 (SMTP) and AS2 (HTTP).

Section

New features

This section will provide an overview of new features.



Most of the new features are centered around the native EDI processing within the WebSphere Partner Gateway.

These core capabilities include EDI de-enveloper to split the EDI transactions from the EDI interchange or envelope, EDI validator and transformation, support for EDI acknowledgements such as TA1 or Functional acknowledgement, and EDI enveloper to envelope generated EDI transactions in cases where the output is EDI.

The console has been enhanced to allow configuration of EDI settings and viewing the status of the EDI interchange and transactions as they pass through the hub.

The existing components are modified to support these core EDI capabilities.

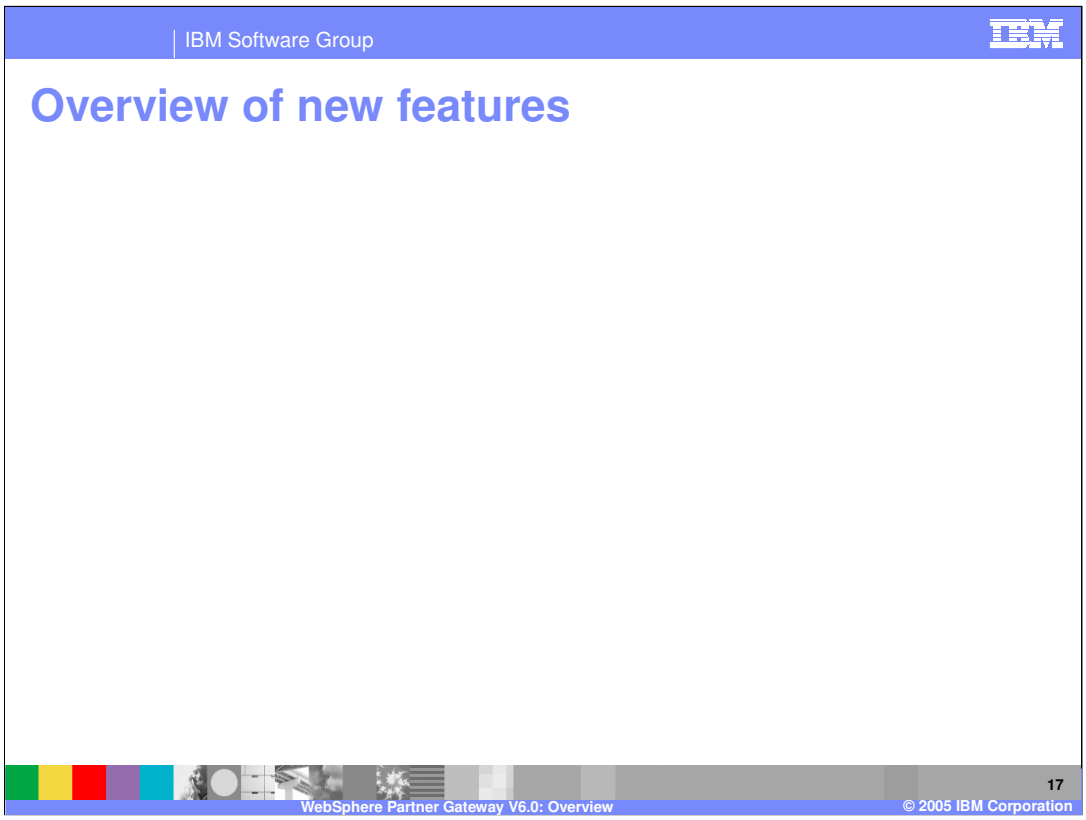
Overview of new features

- Support for Record Oriented Data (ROD) data
  - Called Application Data Format (ADF) or Data Format (DF) in WebSphere Data Interchange product
- Transformation to and from between EDI, XML, and ROD documents
  - Polymorphic transformation will also be supported
- Support for multiple EDI or XML or ROD documents in single document file
  - Splitters are provided to allow splitting of these documents into individual EDI, XML or ROD document

Support for Record Oriented data or ROD is now supported. For WDI users, the ROD format is the same as Application Data format or Data format.

With the support of ROD and EDI, transformation to and from EDI, XML and ROD documents is supported, including polymorphic transformation. Polymorphic transformation is taking one input document and creating multiple output documents with each output document transformation depending on the intended recipient.

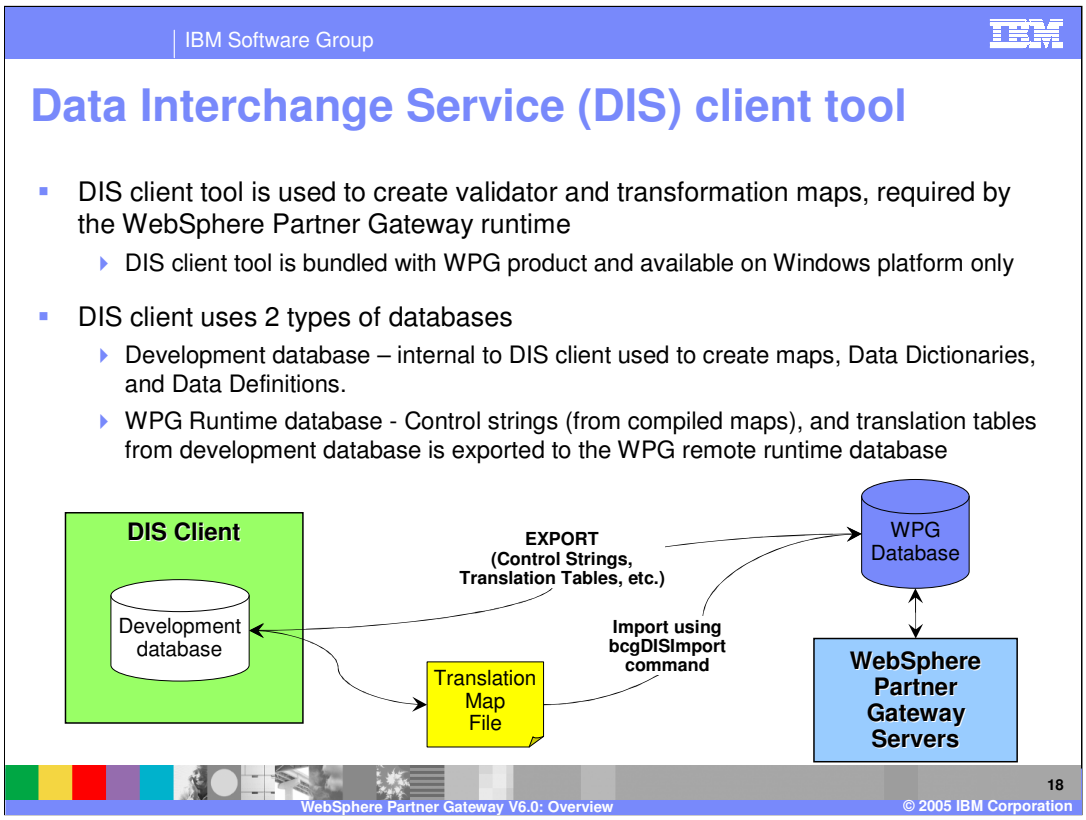
WPG also includes support to accept multiple business documents within a single incoming file. For example, a file can contain multiple EDI interchanges. WPG provides splitters that can be used by the administrator to handle the single file. The splitter will split the incoming file into each of the business documents, so in the case of EDI, it will split the file into its EDI interchanges, and send each EDI interchange to be processed by the hub document manager.



WebSphere Partner Gateway now includes support for FTP scripting, which is also supported by most of the VAN service providers. With the support of FTP scripting, WebSphere Partner Gateway can now support EDI over VAN through the FTP scripting support. Only VANs that support FTP interface will be supported in WebSphere Partner Gateway for EDI over VAN support.

The Viewers have been enhanced to show the status, problems, errors of the document flows for EDI interchange, transactions, and acknowledgements.

Additionally, WebSphere Partner Gateway includes the mapping and transformation tool based on the current WebSphere Data Interchange (WDI) mapping tool. The mapping tool supports creation of maps for XML, ROD and EDI data formats and contains large libraries of built-in functions, the ability to combine maps and support for EDI constructs.

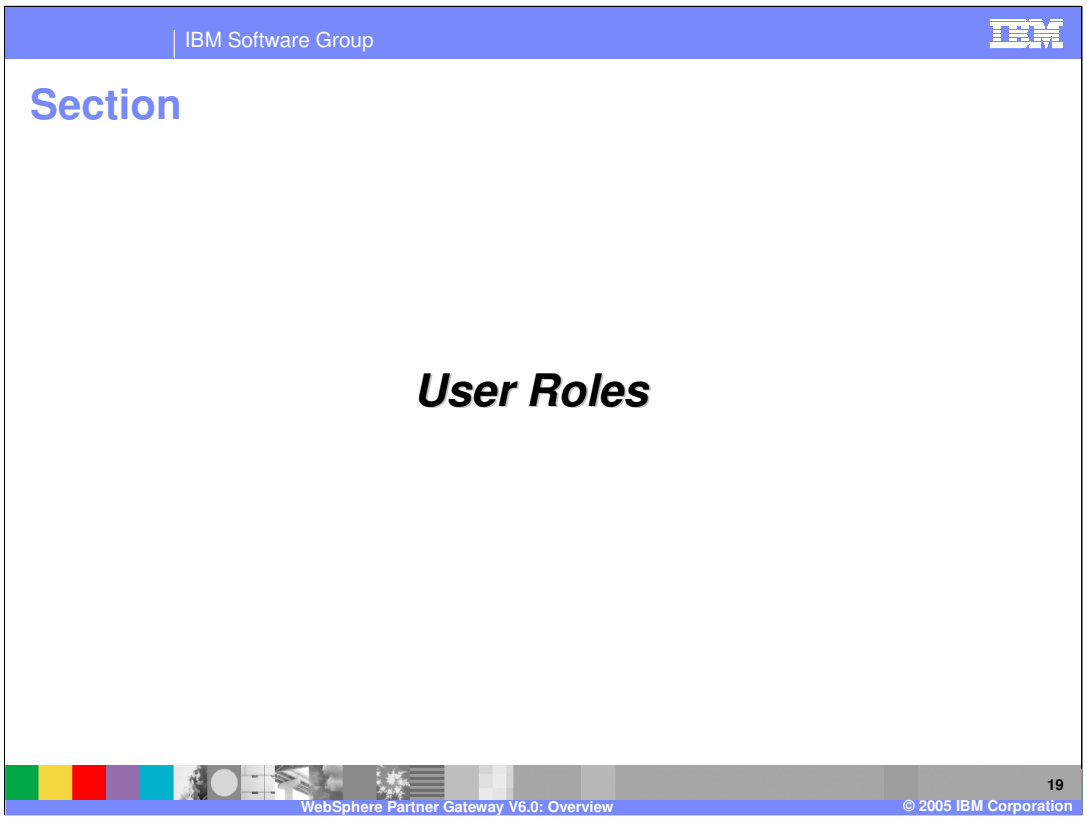


Bundled within the WebSphere Partner Gateway is a client tool called DIS Client, which is used to create EDI, ROD and XML data dictionary, maps for validation, transformation, and acknowledgement. It is available only for the Windows platform. The DIS client tool is a subset of the WebSphere Data Interchange (WDI) Client tool packaged with WDI.

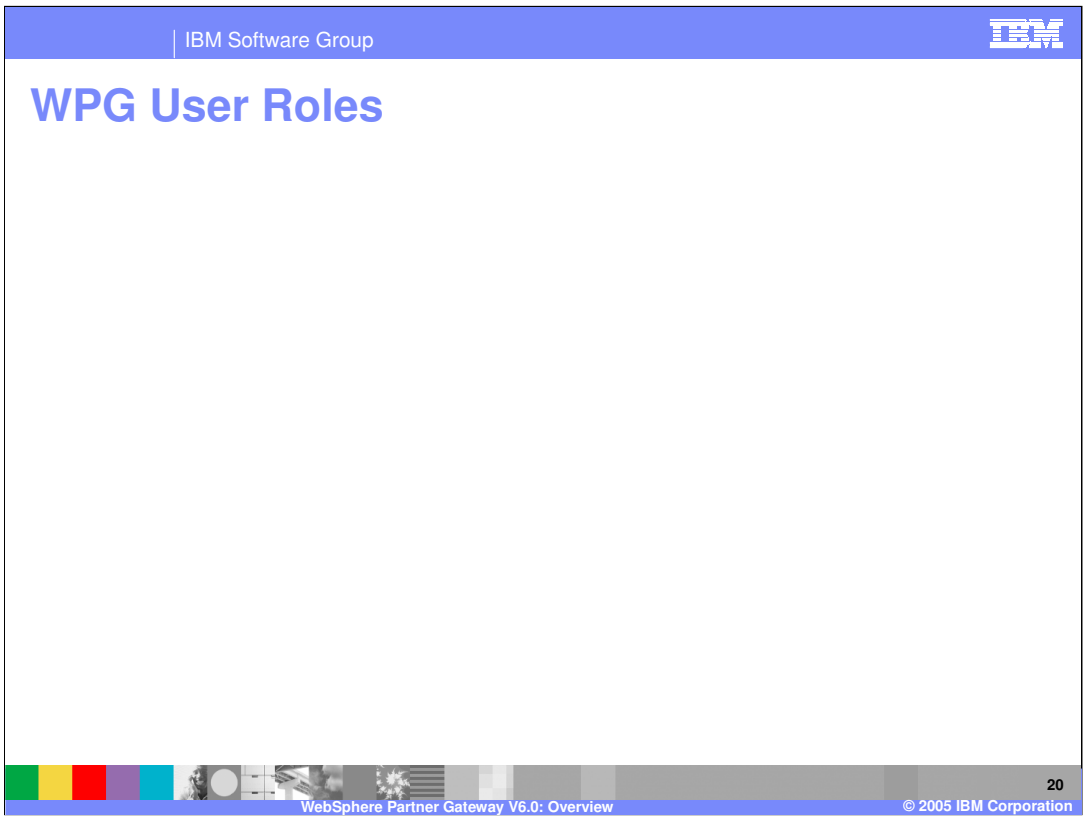
The DIS client uses a development database and WebSphere Partner Gateway runtime database. The person who creates the maps, referred to as the mapping specialist, uses the development database to create the dictionaries, maps and other artifacts. Once done, they will compile the maps and export them to the WPG runtime database, used by the WPG hub.

The diagram shows the flow of how the data definitions, and maps flow from the DIS client to the WPG database.

The DIS client provides export functions to export the artifacts directly to WebSphere Partner Gateway. Alternately, the compiled maps can be exported to a file, which can then be used to import into the WPG database using the **bcgDISImport** command provided with WPG. The latter method would be a common choice for administrators who want control of the WPG runtime database, and might not want the mapping specialist to change the WPG runtime database.



This section provides a description of the various user roles associated with the WebSphere Partner Gateway hub.



At a high level, the roles for WebSphere Partner Gateway can be divided into the following 4:

•**Installer** installs the hub environment, including the DBloader, the runtime servers, the pre-requisite software in WebSphere MQ, and the database and shared file storage if required.

•**Administrator** – there are three different types of administrators.

•The hub administrator, also called the Community Operator, who has all permissions.

•The Community manager, whose job is to manage the hub, cannot perform some functions reserved for the hub administrator. They can work on the configuration and document flows defined by the hub administrator. The Community manager can set their own profiles, manage the profiles of the trading partners and create participant connections between trading partners. A community manager is also a trading partner.

•The trading partner, also called the Community Participant can configure their own profiles, including the users and B2B capabilities, and view their own events and documents.

•**EDI Operator** is a new role defined for WebSphere Partner Gateway. Their function is to monitor the status of the EDI documents as it flows through the hub, looking for any problems or errors.

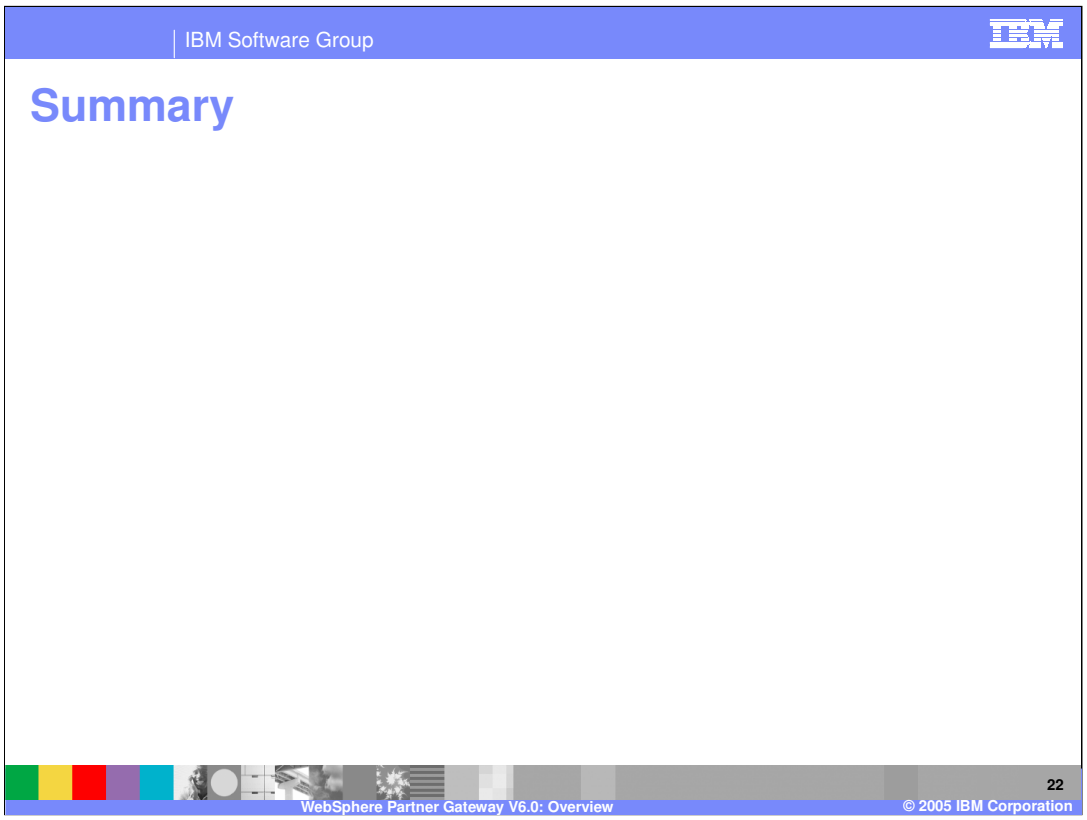
•**Mapping specialist -** creates the different maps required by the hub. They use the DIS client tool to create the necessary hub and export the maps to the WPG database, or provide the compiled map files to the administrator who can then import it using the command line DISImport tool.

These are not hard defined roles, and in many cases, there may be someone who performs multiple roles within the enterprise.

Section

Summary

This section will provide a brief summary.



WebSphere Partner Gateway V6.0 adds many new important native EDI capabilities, including some integration of the WDI functionality into WPG. While adding new capabilities, all the existing functions of WBI-C V4.2 continue to be supported in the new release.

References

- Information Center, Redbooks
  - http://www.ibm.com/software/integration/wspartnergateway/library/

The links to the WebSphere Partner Gateway library page is shown here. The Information Center, Redbooks and other product documents are available from the library page.

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