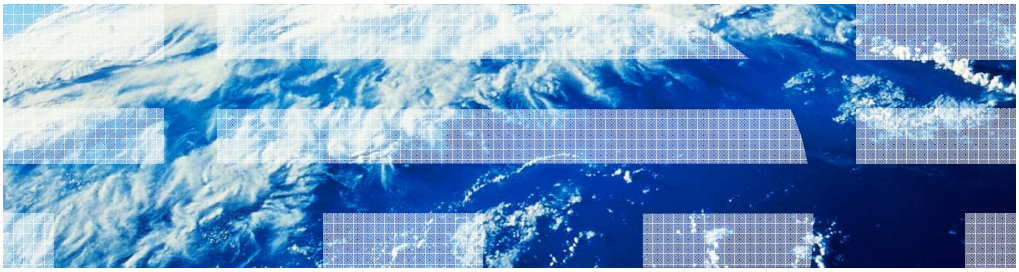
IBM WebSphere Partner Gateway V6.2.1 Advanced and Enterprise Editions

Architecture and New Features Overview



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This presentation covers the architecture and components of WebSphere Partner Gateway V6.2.1. It also covers the new feature / functions included in this new release.

Goals

- Architecture Overview
- High level overview of new features in this release

Note: The details of the new functions are provided in separate presentations

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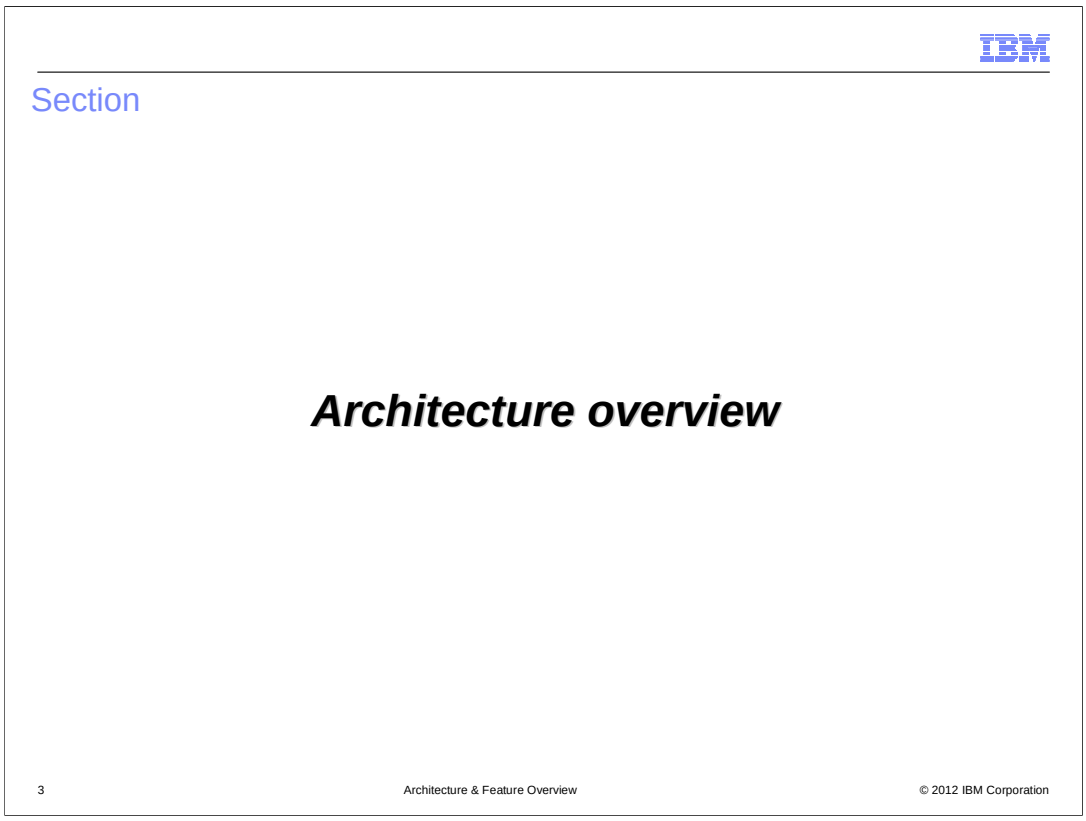
The goal for this presentation is to provide, an architectural overview and quick look at the new features included in this release.



The next section covers the Architectural Overview

Agenda

- High level overview of architecture and components
- Basic document flow
- Extensibility
- Summary

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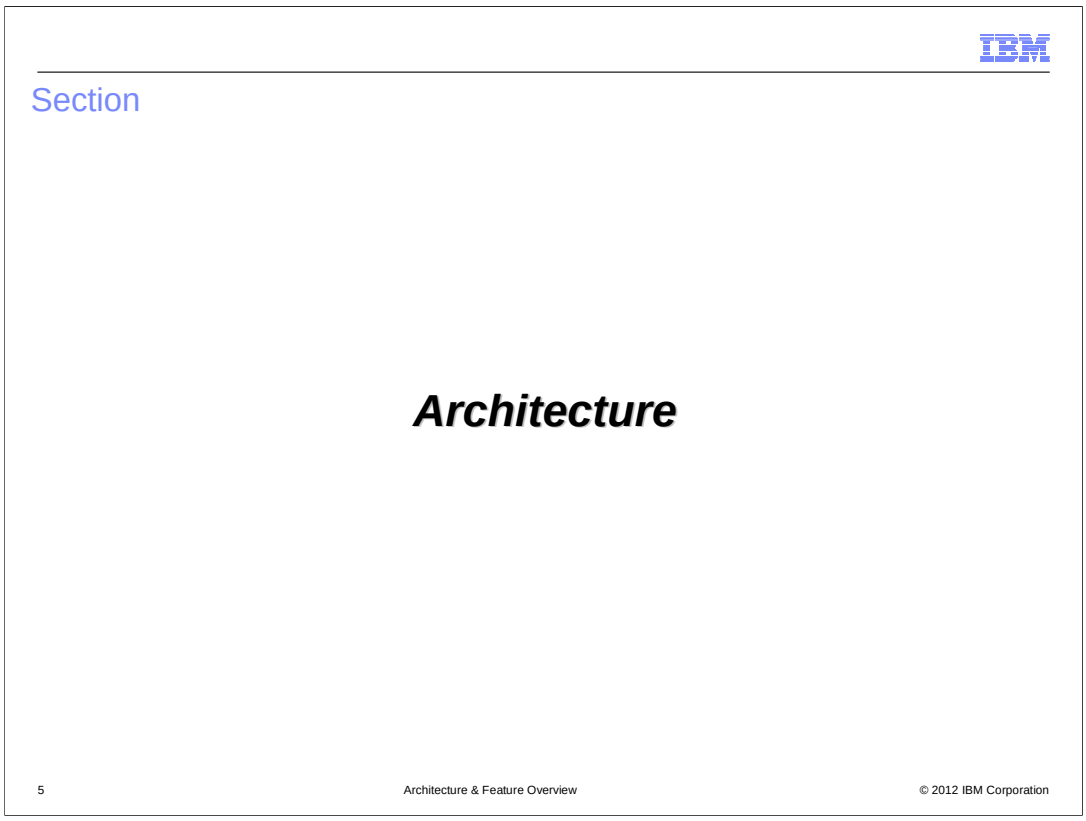
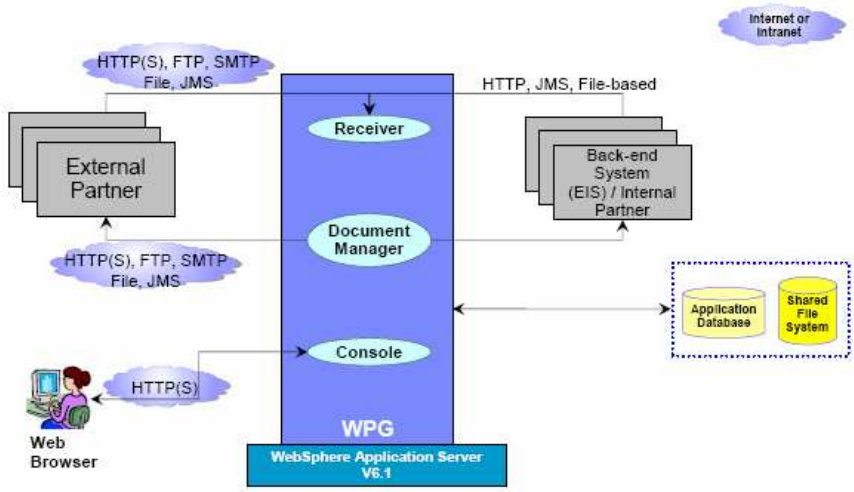
The agenda includes a high level overview of architecture and components, followed by some basic flows. The extensibility of the product is also discussed.



The next section covers the architecture.

High level architecture and document flow



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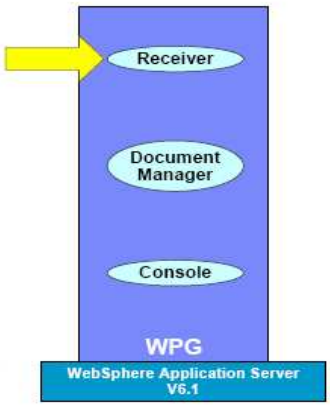
The slide shows the high level architecture and high-level view of the document flow through the WebSphere Partner Gateway hub components. This architecture is similar to V6.0.
There are three major WebSphere Partner Gateway components, namely the Receiver, Document Manager and Console.
Receiver is the front end to WebSphere Partner Gateway. It accepts and stores documents from partners or back end system for further processing by WebSphere Partner Gateway.
Document Manager retrieves stored data, processes and routes it to both partners and enterprise applications. Additionally, this component performs packaging, validation, logging and other document related functions.
Console provides a view of all business-to-business interactions, allows creation and maintenance of various partner data, profiles, certificates and provides a user interface for the hub administration
WebSphere Partner Gateway requires a shared File system such as Network Area Storage (NAS) used for common storage of documents.
A Database is used to store hub configuration data, meta data, document status, activity logs, temporary store and other information. The Console and the Document manager interacts with the database to save or retrieve information.
Documents can be sent by the external trading partners or internal trading partners (some back end system). Once inside the hub, the document is processed based on the configuration of the hub for that type of document. The processed documents are then sent to the trading partners or to the back end systems.
WebSphere Partner Gateway is a loosely coupled component architecture which enables very high scalability and high availability topologies.
WebSphere Partner Gateway can be used alone to provide business-to-business connectivity to a partner. You might also choose to deploy it with other WebSphere Business Integration offerings to provide tighter integration with your enterprise applications. It supports JMS connectivity, HTTP/S, FTP, FTP Scripting and File-based between the gateway and its external or internal partners

Receiver

- Accepts documents from community participants and from back-end systems and stores them
  - Receives a document over a supported transport protocol
  - Determines if a synchronous response document is required for keeping the connection open. Writes the document and metadata relating to the document to shared file services
- Records any transport-specific data (like the source IP address and certificate information about the SSL connection).
- Completes any transport-specific technical acknowledgment (like sending a 200 response to an HTTP POST)



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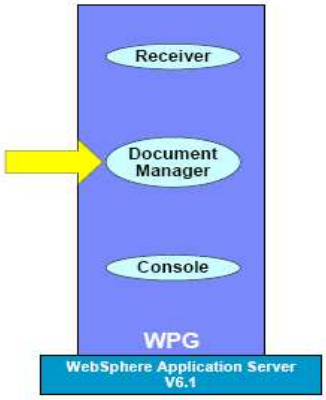
A high level view of the functions of the Receiver is shown here. As the name suggests, the job of the receiver is to receive documents and prepare them for the next stage of the document manager. It receives documents from trading partners or back end systems over many supported protocols and packages. The received document and meta data are placed in the common shared file system and the document manager is notified of the new arrival. The receiver handles any transport level functions.

Document manager

- Retrieves stored data, processes and routes the data, both to external partners and to enterprise systems.
  - Saves the inbound document to the non-repudiation store and message store.
  - Unpackages the data and performs authentication and authorization.
  - Processes the data to the destination format performing tasks such as validation, transformation, and packaging.
  - Saves the destination document to the non-repudiation store and message store.
  - Delivers the document to the intended target destination using JMS queue, file directory, HTTP, FTP or other supported mechanism
  - Additional tasks include protocol
  - Acknowledgments and retries, event processing, alert processing, and resends



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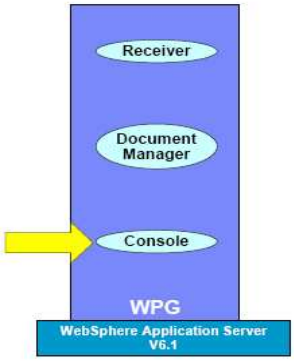
The document manager is the brain of the hub. This is where document processing occurs. When notified of a new document by the receiver, the document manager retrieves the document from the common storage, processes it and routes it to the intended target. The administrator configures the document manager to perform the appropriate actions, such as validation, transformation, or just pass through, on the document. Protocol specific actions for received documents such as un-packaging including decryption, signature verification, and acknowledgement are performed. Protocol specific actions for sending documents such as packaging including encryption, signatures, and retries are also performed.

Console

- The Community Console is used for configuring,

  administering, and monitoring trading community activities, and responding to events
- The users are primarily the Hub Administrator and the Internal/External partners
- Console provides role-based access control to the various features and views
- Features of the console include:
  - Screens for configuring the hub community and for managing partners.
  - Tools for monitoring business-process events and exceptions.
  - Detailed reports and analysis on business process, trend, and exception activity
  - Tools to troubleshoot document processing
  - The ability to drill down to events and raw documents



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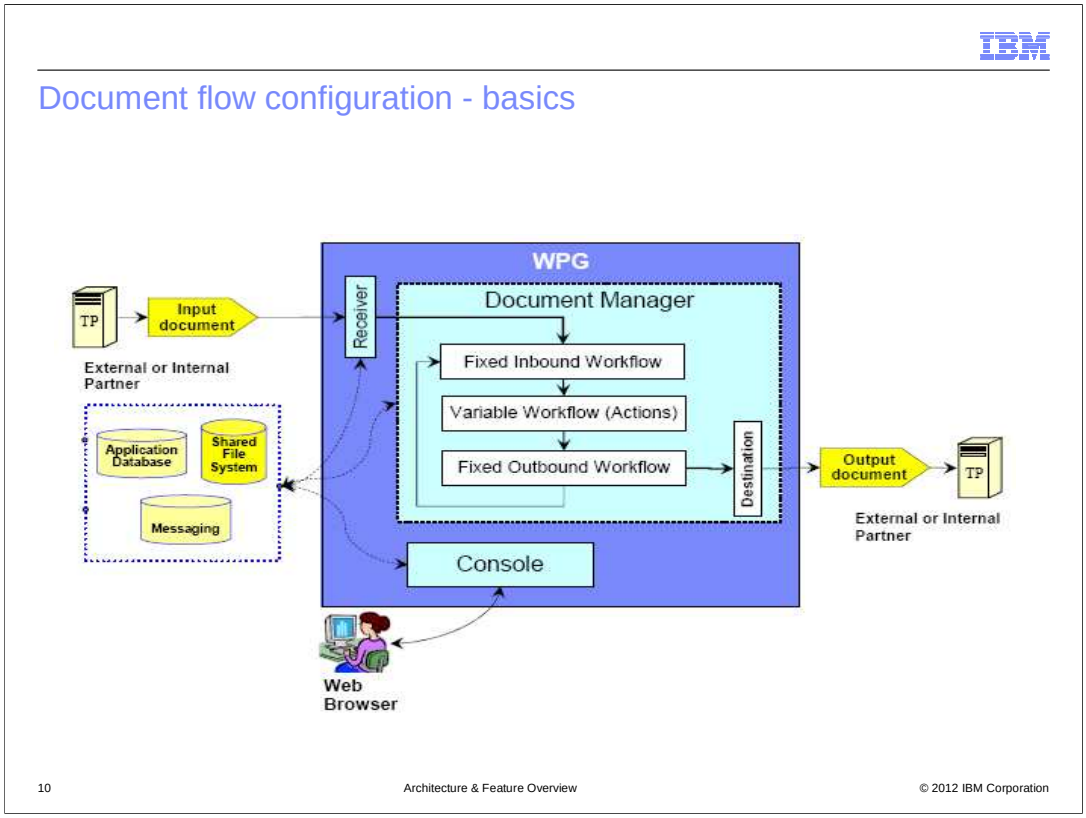
The Console is the web interface for the Community Operator, Internal Partner, or the External Partner to configure. It is also used to administer and monitor the trading activities. Based on the type of user logged in to the console, appropriate functions are exposed based on the user's role. The console also provides an interface to a set of tools that allow you to view the documents that have flowed through the hub and provides troubleshooting for failed documents



This graphic provides more detail about the basic flow within WebSphere Partner Gateway components, especially the Document Manager. There are three different workflows for every document passing through the document manager. First, the fixed inbound workflow is used for a fixed set of work actions that apply to all incoming documents.

For example, unpackaging the incoming document like an AS2 packaged document. Second, the variable workflow is, as the term implies, variable and is based on the actions specified by the administrator on the specific incoming document. Examples are Validation and XML Translation that apply to EDI and XML document flows.

Third, the Fixed outbound workflow is used for a fixed set of work actions that apply to all outgoing documents. For example, packaging the outgoing document to an AS2 packaged document. In some document flows, especially involving EDI documents, intermediate documents are created by the hub and then flowed back through the document manager for further processing. Each flow of any document through the hub represents a connection between the source and the target trading partners, including the intermediate ones.

Section

Extensibility

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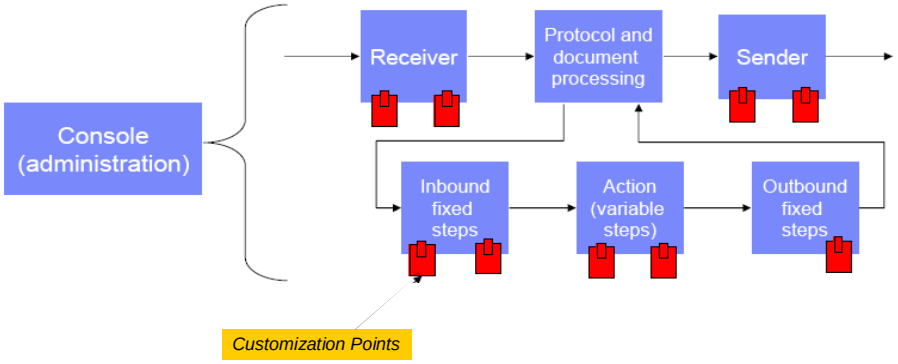
The next section covers the Overview of the function.

Extensible architecture through exits (handler)

- Provide interface to perform custom functions through user 'exits' or
- "handlers' – multiple customization points
- Custom processing function such as validation and transformation
- Enable addition of custom transports, packages and protocols
- Documented for customers, services and partners



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WebSphere Partner Gateway provides a mechanism for adding custom functions called exits or handlers at different stages of document processing. It includes support for many pre-defined packages, protocols and document types. With the pluggable extensibility of the architecture, new custom packages, protocols or document types can be added by the hub administrator.

Listed below are some examples of architecture extension through the use of exits and handlers.

One example is for Encryption, Validation and Transformation,

As WebSphere Partner Gateway receives and processes a document, a 'call out' to any program can be easily made as part of the possessing. These User Exits or handlers can be used for example for document encryption and decryption, and validation, or transformation, or both.

Another example is for Custom Transports, Packages and Protocols.

WebSphere Partner Gateway is extensible to enable custom Transports, Packages and Protocols to be added within the framework of WebSphere Partner Gateway runtime and Community Console based administration. There are number of exit points that enable the addition of custom listeners for additional Transports, parsers for additional Packages and Protocols. In this way the rest of the infrastructure of WebSphere Partner Gateway can be used

in conjunction with these new capabilities.

Section

Summary

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The next section covers the summary

Summary

- Architecture and components of WebSphere Partner Gateway
- Main components of the product and their roles in the document flow
- Architecture extension points support functions and protocols that can be needed by the users of hub

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In summary, so far this presentation covered the basic architecture and the components of WebSphere Partner Gateway V6.2.1.

Section

What's new in this release

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The next section covers what's new in this release.

New features / functions

- Web Mail Box
  - Web Mail Box is a Web based support for business-to-business interaction. Partners, customers and vendors interact with WebSphere Partner Gateway using only the internet browser.
- Integrated SFTP Server
  - The SFTP Server is integrated with WebSphere Partner Gateway to support SFTP Gateway, SFTP Receiver.
- Support for OpenPGP
  - OpenPGP is based on a combination of strong public-key and symmetric cryptography to provide security services.
- Support for WebSphere Application Server Network Deployment V7.0.0.13, WebSphere Messaging Queue 7.0.1.3, and WebSphere Transformation Extender 8.3.
- Platform support for Windows 2008, Windows 7, and SLES 11.
- Power 7 Support - Toleration Mode (P6/P6+ Compatible Modes).

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You will now take a look at some of the new features included in this release.

Web Mail Box

Web Mail Box is a Web based support for business-to-business interaction. This allows partners, customers, and vendors to interact with WebSphere Partner Gateway using internet browsers, that is, Web based support for business-to-business interaction. The Web version of the WebSphere Partner Gateway Console is opened in a browser and no external infrastructure is required

Integrated SFTP Server

-WebSphere Partner Gateway 6.2.1 has extended support for SFTP integrated server (FTP over SSH).

The supported version of SSH protocol is SSH v2 (SSH2). The SSH server implements the SFTP subsystem for file transfer, after which the SFTP client (like WebSphere

Partner Gateway receivers and destinations) can connect to the SFTP server

Support for OpenPGP

OpenPGP is based on a combination of strong public-key and symmetric cryptography to provide security services.

OpenPGP is a term given for security software that provides authentication, confidentiality, and data integrity by means of

digital signatures, encryption, compression, and radix-64 conversion.WebSphere Partner Gateway 6.2.1 supports OpenPGP specification that follows RFC 4880.

Support for WebSphere Application Server Network Deployment V7.0.0.13, WebSphere Messaging Queue 7.0.1.3, and WebSphere Transformation Extender 8.3.

Platform support for Windows 2008, Windows 7, and SLES 11(SuSE Linux Enterprise Server).

Power 7 Support - Toleration Mode (P6/P6+ Compatible Modes).

Section

Summary and references

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The next section will summarize your discussion so far..

Summary

- Web Mail Box
- Integrated SFTP Server
- Support for OpenPGP

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In summary, so far this portion of the presentation covered new features that are part of this release.

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