IBM WebSphere Business Integration for Financial Markets

Current economic conditions require securities firms to seek efficiencies and competitive advantage from IT investments. The combination of increased competition and regulations has decreased margins in trading significantly by reducing the fees that firms can charge as well as narrowing the spread between an instrument's buy and sell prices.

In this time of tighter margins, you can improve profits by controlling trade-processing costs and managing operational risk. WebSphere Business Integration for Financial Markets provides a flexible integration platform that delivers the full set of integration capabilities required to improve operational efficiency, drive costs from securities back-office processing and help reduce implementation risk.
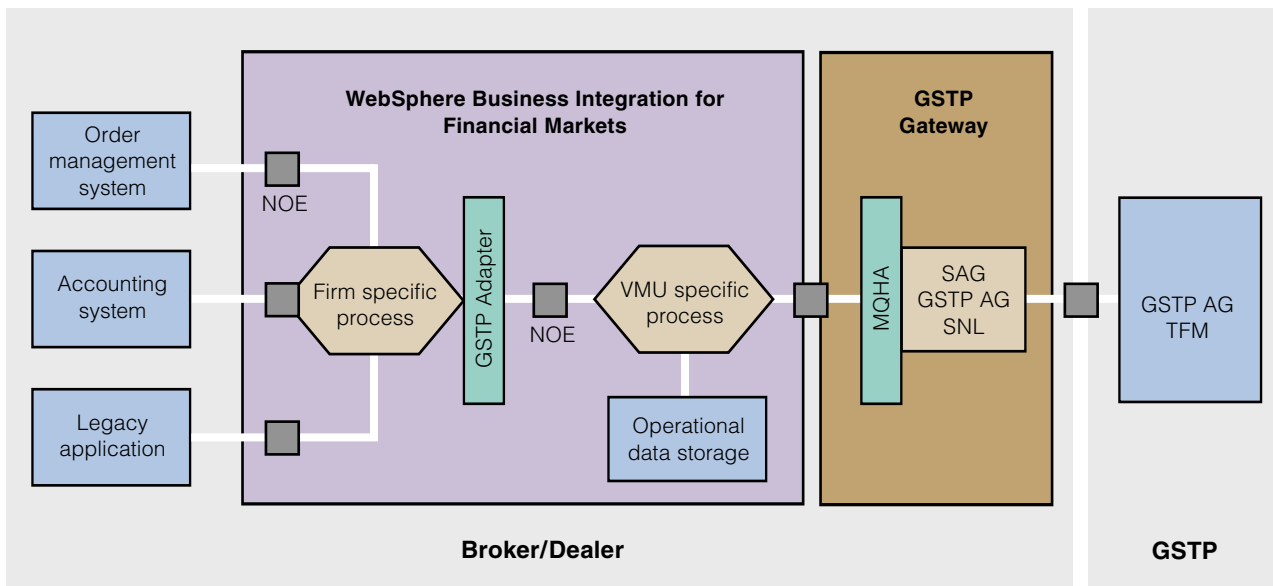
Highlights

- **Delivers fast bottom-line benefits with fewer failed trades**
- **Enables process integration for the new Internet Protocol (IP) based SWIFT network, GSTP, FIX and beyond**
- **Leverages a general integration platform for automation of trade processing for securities industry participants**
- **Extends IBM WebSphere® Business Integration Base with prebuilt process templates for standard transactions**
- **Provides integration to virtual matching utilities**
- **Helps make implementation easier with prebuilt process templates, thus reducing risk**
- **Minimizes need for the manual intervention that results from failed and problem trades**

Figure 1. Architecture for automated post-trade and presettlement trade

The changing environment of financial markets

Participants in financial markets have to cope with a changing environment caused by:

- *Increasing globalization of the markets*
- *New competition*
- *Changing market conditions*

Globalization is driving increased cross-border trading activity. Instruments from different geographies, denominated in multiple currencies, listed on multiple exchanges make this trading activity increasingly complex. Additional complexity arises as institutions try to address their overall financing and risk management when their information and controls are tied directly to individual markets.

New competition comes as foreign firms challenge established institutions in their domestic markets. Changes in the competitive environment extend to the execution points as electronic trading venues create alternatives to the established markets. The merger of major financial institutions has produced a new group of mega-institutions that have to consolidate internally and are reshaping the marketplaces.

Conditions in individual markets produce significant stress on organizations. Volatility in market volumes is stressing many firms' trade processing. Additional stress comes from extended trading hours and the compressed processing windows of globalization. Changes are resulting from the market consolidation in Europe following the monetary union, as well as from the expansion of national markets in Asia. Increasing regulations not only

create more overhead, but they can, as in the case of decimalization of the equities markets in the United States, can bring about fundamental changes in the market economics.

Key to remaining viable: Automating the trade life cycle

To remain viable, securities firms need to cut costs and enable new services. Trade life-cycle automation must:

- *Be an event-driven, continuous process*
- *Span multiple organizations and systems*
- *Pass information electronically in near real time, using standard formats and protocols between institutions*

To enhance their operational efficiency, institutions need to focus on strategic investments that can show near-term returns. WebSphere Business Integration for Financial

Markets specifically addresses the high-priority need for greater automation in the trade life cycle — Straight-Through Processing (STP).

Meeting the challenge of STP

The movement to STP is more than a technology change. It requires the redesign of business processes as well as the implementation of an infrastructure and new applications to support those processes. STP links all trade participants and their processes into a single process flow. If any one of these participants is not working in an STP environment, STP cannot be achieved.

The IBM integration platform for the securities industry

WebSphere Business Integration for Financial Markets is part of the WebSphere Business Integration platform. This platform is the next step in the IBM evolution of leadership in integration middleware. You can tailor and customize the platform according to your specific needs. The WebSphere Business Integration provides a scalable platform for full-enterprise integration as new technologies emerge.

WebSphere Business Integration for Financial Markets is the IBM integration solution for STP, and leverages the WebSphere Business Integration platform, which is built on the IBM strategic offering, WebSphere Business Integration. This offering consists of IBM WebSphere MQ Integrator Broker, IBM CrossWorlds® InterChange Server and IBM WebSphere MQ Workflow to provide a unified base for message brokering and process management between applications and workflows that involve people. WebSphere Business Integration for Financial Markets extends the
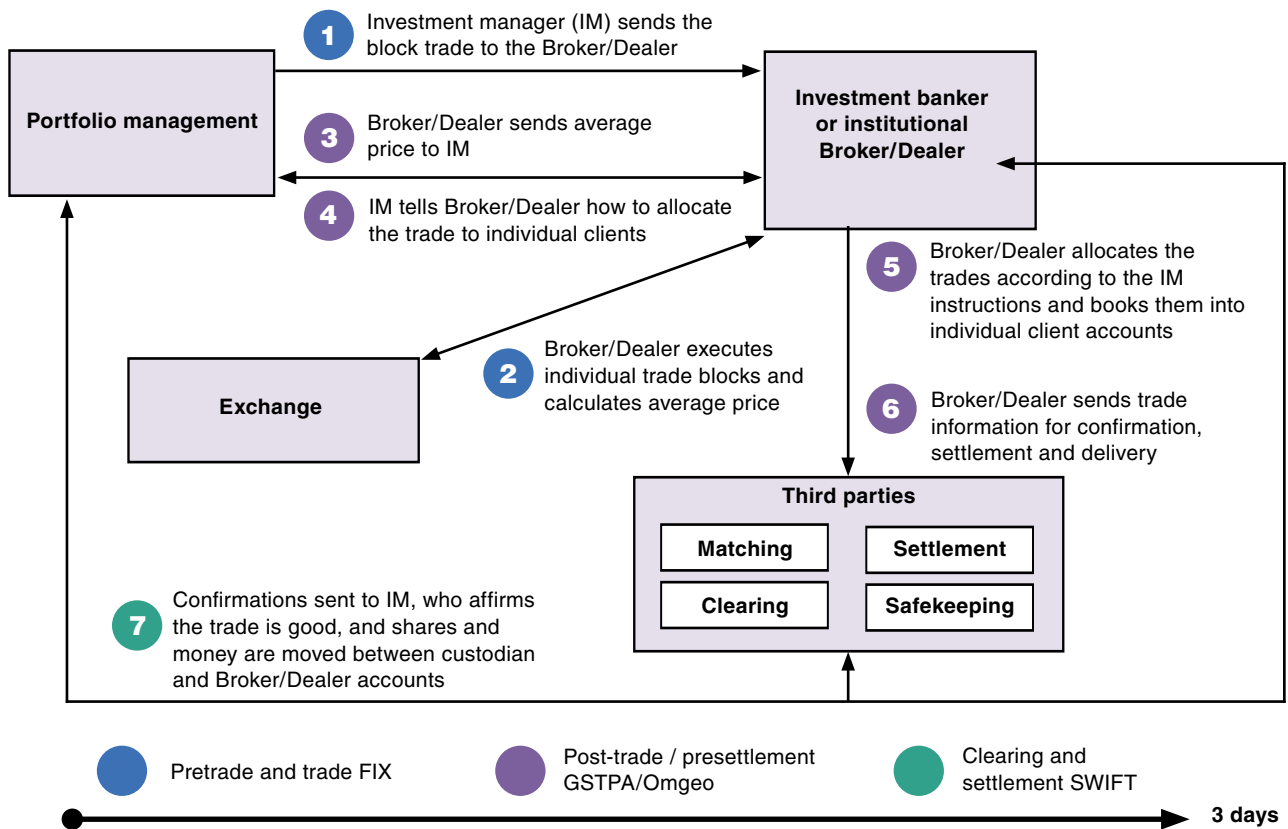

Figure 2. A simplified view: Straight-through-processing of equity trades requires automation across multiple enterprises and networks

WebSphere Business Integration platform with industry-specific adapters and business process templates designed to solve specific integration problems. WebSphere Business Integration for Financial Markets is a complete solution to simplify integration of securities transactions, allowing adaptation to future marketplace requirements in volatile global markets. It is built on industry- standard IBM middleware offerings providing a robust, resilient and scalable infrastructure, enabling process integration for the new IP-based SWIFT network, GSTP, FIX and future industry requirements.

Managing trades from end to end
IBM couples deep knowledge of the securities industry with the broad integration capabilities required to manage a trade from end to end. WebSphere Business Integration for Financial Markets focuses on the needs of companies that want to integrate their business processes with Virtual Matching Utilities, such as those provided by GSTP AG or Omgeo.

WebSphere Business Integration for Financial Markets combines the distinctive capabilities of the WebSphere Business Integration Version platform with the IBM WebSphere Business Integration Collaboration for GSTP Transaction Flow Manager and the IBM WebSphere Business Integration Adapter for GSTP to deliver a GSTP solution with the following advantages:

- *Simplified interface to the GSTP Transaction Flow Manager (TFM) speeds implementation and integration with multiple order-management systems*
- *Intelligent Operational Data Store performs enrichment and message management functions that maximize throughput and reliability*
- *Multilevel validation minimizes the likelihood of incomplete or incorrect messages reaching the TFM, reducing error-tesolution and messaging costs.*

WebSphere Business Integration for Financial Markets provides easy integration with either your own audit and logging capabilities or those of WebSphere Business Integration for Financial Networks or WebSphere Business Connection.

New capabilities for automating trade processes
WebSphere Business Integration for Financial Markets provides new capabilities for the automation of post-trade and presettlement processes. This automation is achieved through integration to the GSTP TFM. The capabilities are delivered using a new business-process template to manage the flow of trade information to and from the TFM.

The IBM WebSphere Business Integration Collaboration for GSTP Transaction Flow Manager is an assembly of collaborations that encapsulate securities post-trade and presettlement processes, such as Notice of Executions, Net Proceeds and Settlement Details.

These collaborations, when coupled with the IBM WebSphere Adapter for GSTP and WebSphere Business Integration, deliver a comprehensive solution for integration with GSTP. The IBM WebSphere Business Integration Adapter for GSTP includes both process flows for WebSphere MQ Integrator Broker and administrative components that allow you to create a simplified interface into the GSTP TFM.

Valuable extensions: Making it easy to connect with providers
IBM provides the adapters to other external service providers that can be used to enable automation in the other phases of the equity-trade life cycle. The IBM WebSphere Adapter for FIX Protocol is used to connect securities firms with other FIX-enabled parties for the exchange of pretrade and trade-related messages. The IBM WebSphere Adapter for SWIFT is used to connect securities firms with the SWIFT network for the exchange of trade settlement-related messages.

WebSphere Business Integration for Financial Networks lets you develop a SWIFT migration approach that does not disrupt operations. It delivers the capability to gain additional efficiencies by consolidating connections to external service providers through a single, unified gateway.

WebSphere Business Integration for Financial Markets at a glance

Hardware requirements	IBM @server pSeries™ IBM RS/6000® processor machines
Hardware minimum system requirements	• One 300-MHz processor RISC 6000 machine, or equivalent • Minimum 1 GB random access memory (RAM) • Minimum 2 GB available disk space
Software requirements	• IBM AIX® 5L Version 5.1. For more details, refer to the *WebSphere Business Integration* and the *IBM CrossWorlds System Installation Guide for UNIX*® • IBM CrossWorlds Collaboration for GSTP Transaction Flow Manager • IBM DB2® Version 7.2 with Fix Pack F04.
Software requirements for WebSphere Business Integration Adapter for GSTP	• IBM AIX 5L Version 5.1 • IBM WebSphere MQ Integrator Broker Version 2.1 • DB2 Version 7.2 with Fix Pack F04

Early problem detection and correction

WebSphere Business Integration for Financial Markets can accelerate the discovery of problems in cross-border equity trades and give your firm the opportunity to fix these problems while repair is still less costly. With this benefit comes the capability to integrate early problem detection into existing applications and processes, thereby yielding further cost reductions. The base integration platform can be leveraged in automating other steps in the trade life cycle, which helps to achieve faster implementation time and higher project return on investment (ROI).

Take advantage of WebSphere Business Integration for Financial Markets

Lower costs of security processing by minimizing problem trades. WebSphere Business Integration for Financial Markets provides the process-integration platform and extensions that can enable your firm to automate internal processes and link them to external finance industry service providers. It provides a high-performance end-to-end platform with a robust development environment, system management and security capabilities.

For more information

For more information, go to **ibm.com**/websphere/integration/fm or contact us at: IBM Worldwide Business Integration Sales 1 888 685-0947 bisales@us.ibm.com
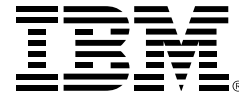
Business integration building blocks

Product or solution	Function	Benefit
IBM WebSphere MQ	Messaging integration	Connect between diverse applications with assured once-only message delivery.
IBM WebSphere MQ Everyplace™	Mobile and wireless integration	Securely extend your e-business to a mobile workforce.
IBM WebSphere Business Integration Adapters, IBM WebSphere Adapters and IBM CrossWorlds® Connectors	Packaged application connectivity	Utilize prebuilt application adapters to integrate packaged software, like Ariba Buyer and SAP.
IBM WebSphere MQ Event Broker	High-performance message publish and subscribe function	Dynamically distribute messages.
IBM WebSphere MQ Integrator Broker	Message transformation and routing	Simplify information exchange between multiple applications.
IBM WebSphere Data Interchange	Electronic Data Interchange (EDI) translation	Integrate EDI and your messaging-based infrastructure.
IBM CrossWorlds InterChange Server	Business process integration	Coordinate business processes across multiple applications.
IBM CrossWorlds Toolset	Business process integration customizing and managing	Easily implement and maintain business integration processes.
IBM CrossWorlds Collaborations	Business process definition and automation	Leverage proven industry process templates to deploy integration solutions quickly.
IBM CrossWorlds Trading Partner Integration	Business-to-business (B2B) communication	Automate supply-chain interaction through a gateway for B2B communication.
IBM MQSeries Workflow	Business process management	Manage business processes across multiple applications and people.
HOLOSOFX BPM Suite	Business process modeling and monitoring	Model, simulate and monitor business processes that execute in the runtime for MQSeries Workflow.
IBM WebSphere Business Integration	A single offering that combines WebSphere MQ Integrator Broker, MQSeries Workflow and CrossWorlds InterChange Server	Deploy WebSphere business integration products as needed.
IBM WebSphere Business Connection	B2B integration with trading partners using Web services or XML data exchange	Extend business process integration securely with trading partners, suppliers and customers.

Business integration building blocks

With the IBM WebSphere platform, you can combine business integration products and solutions selectively or build one upon the other to help integrate applications and business processes within and across enterprises. WebSphere Business Integration for Financial Markets is part of the WebSphere software platform for e-business—a set of integrated, award-winning e-business solutions.

No matter where you are in the e-business cycle, the WebSphere software platform can allow you to grow at the speed your market demands. Building on this robust platform, you can integrate diverse IT environments to maximize your current investments. And leverage existing skills with a full range of business integration solutions from the WebSphere family of products.