IBM WebSphere Business Integration Event Broker and Message Broker V5.0

Overview

WebSphere® MQ is the leader in enterprise messaging, offering reliable, once and only delivery between the broadest range of platforms in the industry.

WebSphere MQ Integrator® is the leading message broker, offering in-flight routing, transformation, logging, and enrichment of messages.

IBM extends its leadership with a new generation of message brokers. The new WebSphere Business Integration brokers introduce WebSphere MQ family protocols targeted at:

- Very high performance real-time Internet and intranet communications
- Web Services
- Mobile and wireless devices
- Telemetry

Combined with the power to distribute brokers across a network under central control, customers can now build a reliable, high-performance on demand enterprise integration bus to connect your key resources.

WebSphere Business Integration Event Broker

WebSphere Business Integration Event Broker (the follow-on product to WebSphere MQ Event Broker) allows you to build a flexible, extensible, secure infrastructure. It quickly leverages both new and existing packaged and homegrown applications and devices across heterogeneous platforms. It extends the market-leading WebSphere MQ messaging transport with other protocols, including those for mobile and telemetry endpoints.

Event Broker provides a flexible entry point into integration you start simple and grow, leveraging and exploiting existing investment in skills and other assets.

WebSphere Business Integration Message Broker

Built on the Event Broker, WebSphere Business Integration Message Broker (the follow-on product to WebSphere MQ Integrator Broker) transforms and enriches in-flight information for a further level of intermediation between applications that use different message structures and formats.

In addition, the Message Broker can be integrated with a database to perform message logging, data merge, and database update functions.

If you are considering Web Services architectures and solutions, the broker can assist with integration of non-Web-Services applications, the routing and transformation of SOAP messages, and the logging of Web Services transactions.

An improvement on point-to-point Web Services implementations that can lead to complex application interdependencies, the brokers help to improve control, simplify application development, lower maintenance costs, and increase flexibility. When combined with WebSphere MQ, you gain essential reliability to Web service.

WebSphere Business Integration Message Broker with Rules and Formatter Extension

This WebSphere Business Integration Message Broker product includes the IBM Rules and Formatter previously offered with WebSphere MQ Integrator for z/OS® V2.1. The WebSphere Business Integration Message Broker with Rules and Formatter Extension for z/OS V5.0 builds on the Message Broker and offers continuity, compatibility, and investment protection for existing customers that require the IBM Rules and Formatter.

At a Glance

WebSphere Business Integration brokers:

- Deliver an infrastructure for e-business on demand™
- Can be used to build an enterprise integration bus for e-business on demand
- Offer reliable, high-performance messaging
- Connect people, applications, information, and processes
- Are follow-on products to WebSphere MQ Integrator Broker and MQSeries® Integrator
- Provide six WebSphere MQ Transports; Enterprise, Web Services, Mobile, Real-Time, Multicast, and Telemetry
- Add Linux on Intel® and IBM @server zSeries®

Key Prerequisites

The following products are supplied with a restricted license to assist installation:

- WebSphere MQ V5.3
- DB2® Enterprise Server Edition V8.1

Program Number: For details, refer to the Program Number section in this announcement.

Planned Availability Dates

- June 27, 2003 (electronic software delivery)
- June 27, 2003 (media and documentation)

This summary announcement is provided for your information. Please refer to the complete letter for details or contact your IBM representative and/or IBM Business Partner.
WebSphere Business Integration Event Broker

WebSphere Business Integration Event Broker allows you to rapidly build a flexible, extensible, secure infrastructure leveraging existing and new, packaged and homegrown applications and devices across heterogeneous platforms. It extends the market-leading WebSphere MQ messaging transport with other protocols, including those for Web Services, real-time Internet and intranet, multicast, mobile, and telemetry endpoints. Event Broker is a flexible entry point into integration, allowing you to start simple and grow, leveraging and exploiting existing investments in skills and other assets.

WebSphere Business Integration Message Broker

Built on the Event Broker, WebSphere Business Integration Message Broker transforms and enriches in-flight information to provide a further level of intermediation between applications that use different message structures and formats. The Message Broker can be integrated with a database to perform message logging, data merge, and database update functions.

If you are considering Web Services architectures and solutions, the broker can assist with integration of non-Web Services applications, the routing and transformation of SOAP messages, and the logging of Web Services transactions. An improvement on point-to-point Web Services implementations that can lead to complex application interdependencies, the brokers help to improve control, simplify application development, lower maintenance costs, and increase flexibility. When combined with WebSphere MQ, it offers much needed reliability to the Web Services arena.

Benefits of WebSphere Business Integration Message Brokers

WebSphere Business Integration Event Broker and WebSphere Business Integration Message Broker are an ideal platform for business integration. They offer you the essential flexibility to start small and grow with your customer demands. Ease of implementation and ease of use in production ensures that time to value can be slashed and return on investment maximized. These integration offerings help you improve control of your business, allowing rapid response to events as they occur and enabling timely delivery of business information that supports key business decisions.

The use of WebSphere Business Integration Event Broker and WebSphere Business Integration Message Broker means that useful and timely information can be provided for customers, suppliers, and partners to improve customer satisfaction and competitiveness. It can help reduce delivery cycle times and error rates, improving operational performance, including reducing inventory and improving cash flow to increase return on capital employed.

Chief executives can consider improving customer service and business agility while reducing operational and IT costs by:

- Making their organization work smarter and more productively
- Giving them better visibility and control over operations
- Giving their employees the information they need to be successful
- Eliminating activities that don’t add value

Corporate information officers can consider reducing system development and maintenance costs by:

- Reusing existing applications and data, rather than purchasing or rebuilding
- Building new applications that can be more easily reused
- Improving system flexibility and adaptability

Operations executives can consider reducing operational costs by:

- Reducing inventory and improving cash flow
- Improving workforce productivity through automation
- Reducing the cost of rectifying process errors

Customer-facing executives can consider improving customer service by:

- Supplying useful and timely information to customers, suppliers, and partners
- Reducing delivery cycle times
- Reducing error rates

The brokers extend the value of previous investments by supporting and transforming information between old and new standards and formats.

Features of WebSphere Business Integration Brokers

The following list summarizes the new functions and capabilities in this version:

- High-performance event distribution for an on demand business
- Autonomic fail-over of brokers
- Event Broker (which is included with Message Broker) now supports customer extensions and plug-ins
- Support for Web Services is enhanced
- Support for six WebSphere MQ transports
- Enhanced Internet reach and security
- Eclipse-based Message Broker Toolkit for WebSphere Studio
- A new XML transcoding node that supports XML style sheets
- More granular security with database user ID/password support
- One-click install and improved user experience
- Linux on Intel and zSeries platforms supported

High-Performance Event Distribution for an On Demand Business

WebSphere Business Integration Event Broker and WebSphere Business Integration Message Broker manage real-time events between clients, servers, mobile, and telemetry devices, providing a highly scalable, event-driven model to integrate applications and people, regardless of device or location. This is an essential foundation for an on demand enterprise that can adapt to rapidly changing customer and market needs.

The Event Broker now provides an affordable distributed integration platform ideal for distribution across your enterprise with the capability to add custom extensions into the plug-in framework.

Both Event Broker and Message Broker contain the high-performance publish and subscribe matching engine previously available only in WebSphere MQ Event Broker V2.1

Autonomic Fail-Over of Brokers

Cloning of subscription and publication state across a collection of brokers allows subscribing clients to fail over to a secondary broker in the case of broker failure. This...
provides increased fault tolerance for publish and subscribe networks.

**Event Broker Now Supports Customer Extensions and Plug-Ins**

WebSphere Business Integration brokers support the development and deployment of custom-written plug-in nodes within the integration framework. Customers can add Java™ or C code for specialized message routing, analysis, or transformation algorithms. This capability, previously available only with WebSphere MQ Integrator Broker, is now also available with WebSphere Business Integration Event Broker.

**Support for Web Services**

In keeping with IBM's strategy to enable integration via Web Services, WebSphere Business Integration Event Broker and Message Broker now support Web Services standards to enable the integration of both standards-compliant and traditional applications. An improvement on point-to-point Web Services implementations, the broker helps to improve control, simplify application development, lower maintenance costs, and increase flexibility.

**WebSphere MQ Transports**

Multiple transports deliver qualities of service that enable customers to conduct secure business anytime, anywhere. They extend the reach of the enterprise and the power of integration by embracing pervasive, telemetry, and Internet technologies within the integration paradigm. For example, the brokers enable an enterprise to integrate its business partner community across the Internet or remote networks of devices and users.

New features in Version 5 include Internet reach (access through firewalls) and enhanced security that enable you to integrate with confidence over the Internet. The addition of multicast protocols enables simultaneous delivery of identical information to multiple endpoints, optimizing network throughput and performance.

Event Broker and Message Broker now support:

- WebSphere MQ Enterprise Transport for connecting applications with the market-leading messaging middleware
- WebSphere MQ Mobile Transport for connecting applications running on mobile and wireless devices
- WebSphere MQ Web Services Transport for connecting applications that use the HTTP protocol for messaging (Message Broker only)
- WebSphere MQ Real-time Transport for connecting messaging clients (supplied) across the Internet and intranet
- WebSphere MQ Multicast Transport, for optimizing network bandwidth when broadcasting messages to clients
- WebSphere MQ Telemetry Transport, for connecting remote devices through low-bandwidth communications

**Internet Reach and Security**

The following transports now support HTTP tunnelling and quality of protection, enabling enterprises to confidently communicate across the Internet:

- WebSphere MQ Enterprise Transport when used with MQ Internet Passthrough
- WebSphere MQ Mobile Transport when used with WebSphere MQ Everyplace™
- WebSphere MQ Real-time Transport natively supported by the brokers

**Eclipse-Based Message Broker Toolkit for WebSphere Studio**

In line with IBM’s common tooling strategy, the new brokers feature enablement to IBM’s strategic WebSphere Studio Workbench. Based on the Eclipse open source framework, this powerful, easy-to-use tooling greatly enhances the developer experience. It enables the use of code repositories to support teamwork and provides improved debug and deployment capabilities.

Customers can benefit from improvements to the graphical development environment to help model information flows and multibroker topologies that provide reduced time to value. This single consistent tools model across the WebSphere portfolio ensures that valuable skills can be developed and deployed across a wide variety of industry-leading platforms, from WebSphere Application Server to WebSphere Business Integration Server, ensuring a clear protection of such investment.

**A New XML Transcoding Node that Supports XML Style Sheets**

Additional transformation capabilities have been provided through the inclusion of a new XSLT-based XML transformation node. Initially, this supports transformation of XML messages only. The style sheet to be used to define the transformation may be specified as an attribute of the node instance or be determined within the context of the flow and specified using a defined area of the local environment.

**More Granular Security with Database User ID/Password Support**

External database access from compute/database/warehouse nodes is extended a facility that allows a user to associate a specific user ID/password with a given ODBC DSN in the broker runtime. This user ID/password combination is then used for all connections made by the broker to the particular DSN, overriding the default use of the broker’s user ID/password.

This addresses a key customer requirement to specify different user ID/password combinations for different databases and to set this on a broker-by-broker basis. A command line tool will be provided for setting this information in the broker’s “registry.”

**One-Click Install and Improved User Experience**

The brokers now feature a one-click install — a key attribute of IBM’s increased focus on supreme ease of use. Other usability features include “learn as you go,” dynamic, context-sensitive help and sample configurations. The new tooling supports easy migration from WebSphere MQ Integrator V2.1 to WebSphere MQ Integrator Broker V2.1.

**Sybase/New Era of Networks Rules and Formatter**

The Rules and Formatter nodes are now only available with the WebSphere Business Integration Message Broker with Rules and Formatter Extension V5.0. Ongoing support for the IBM Rules and Formatter nodes will provide equivalent capability to WebSphere MQ Integrator V2.1.
Extended Platform Support
Customer integration options are further enhanced by the broker’s support of Linux on Intel and zSeries servers.

Features Summary
The main features are:
- High-performance event distribution
- Autonomic fail-over of brokers
- Content- and topic-based subscriptions
- Transformation, routing, and enrichment of messages in-flight
- A distributed architecture that includes a configuration manager, one or more distributed brokers, and one or more Message Broker Toolkit for WebSphere Business Integration — studio workstations (formerly control centers)
- Support for telemetry and pervasive devices
- Database integration for message logging, merge, and update
- End-to-end transactional integrity between applications

Transaction Processing SupportPacs
Each SupportPac™ supplies a particular function or service that can be used with one or more of the WebSphere MQ products.

New SupportPacs are now available.

Visit the Transaction Processing SupportPacs library:
http://www.ibm.com/software/mqseries/txppacs

Accessibility by People with Disabilities
WebSphere Business Integration Event Broker V5.0
WebSphere Business Integration Message Broker V5.0

These products meet the requirements for keyboard access, object information, sounds, display, timing, documentation, and accessibility testing.

The Message Flow Editor overview and palette are not accessible; they do not allow keyboard access to all functions. This is due to the underlying Flow Composition Builder (FCB) Eclipse component, which does not provide keyboard support.

WebSphere Business Integration Message Broker with Rules and Formatter Extension V5.0

The Rules and Formatter within this product does not fully comply with the requirements for keyboard access, object information, sounds, display, timing, documentation, and accessibility testing.

Product Positioning
New versions of the brokers demonstrate IBM’s continued commitment to integration networks and broker technology. Integration brokers are now taken to the next level by revolutionizing the tools interface, providing more qualities of service through more transports, and more flexibility of deployment options through combinations of multicast and unicast.

The brokers provide flexible entry points into integration, leveraging investments in WebSphere MQ messaging. Start with WebSphere Business Integration Event Broker for a real-time, event-driven infrastructure. When more capability is required, the investment in Event Broker is preserved in the WebSphere Business Integration Message Broker and the WebSphere Business Integration Message Broker with R&F Extension that adds any-to-any transformation and database integration. Both brokers can provide clear ROI by:
- Reducing the number of interconnections
- Simplifying the endpoint requirements
- Centralizing information manipulation and routing in the network

The enterprise integration bus, built with the brokers, is the foundation for process-based integration provided by WebSphere Business Integration Server.

For enterprises with distributed IT resources (dispersed geographically or between different departments), many brokers can be distributed around a network to create a scalable, robust, and efficient infrastructure for e-business on demand.

WebSphere Business Integration adapters work with WebSphere Business Integration brokers to enable easy connection to popular packaged applications. They share management and control functions, and message formats with the brokers. WebSphere Business Integration Message Broker is included as part of the WebSphere Business Integration Server, which also provides process management and workflow.

Program Number

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Reference Information
Refer to Software Announcement AP03-1125, dated May 20, 2003.

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