MQSeries Integrator V2 Integrates Applications Quickly and Easily

Overview

MQSeries® Family

IBM’s open, scalable, industrial-strength messaging and information infrastructure enables enterprises and their partners to integrate business processes to form an efficient enterprise- or community-wide system.

Different hardware and software platforms can behave as if they were designed to work together. You are no longer constrained by platform incompatibility. Your business operation can be captured and turned into intelligent rules that:

- Merge information from databases and other sources
- Transform the information and route it to its target

Your business process flows can be simply defined, visualized, modified, and automated to yield significant quality and productivity improvements. MQSeries is a key technology for IBM e-business and for transporting workflow data, and it is the key technology for IBM business integration.

New for the MQSeries Family

Integration opportunities are advanced significantly with:

- New APIs to simplify handling information and messages
- eXtensible Markup Language (XML) for self-defining messages
- These are supported by a new version of MQSeries Integrator (V2.0) that adds:
  - Dynamic publish/subscribe based on message subject or content
  - Database integration
  - Third-party integration functions

MQSeries Integrator, V2.0 is central to the MQSeries portfolio. It helps you to create, deploy, and control message-based business solutions:

- Integrate existing applications with new e-business requirements
- Connect applications between enterprises and their suppliers

MQSeries Integrator, V2.0 provides a rich range of tools, GUIs, message dictionaries, and enables third-party plug-ins. It supports XML, which is an emerging internet standard. XML lets documents contain structured information, such as words, pictures, or sounds, and some indication of what role that content plays (for example, this is the name of a person, their photograph, and a voice greeting). XML can convey specific pieces of tagged information, such as delivery dates or zip codes.

The product is available on the AIX® and Windows NT® platforms, and includes the corresponding MQSeries base product necessary for its operation. This new version is an evolutionary step forward from MQSeries Integrator V1, which is included with it. The new publish/subscribe function is compatible with the existing MQSeries V5 publish/subscribe offering.

Application Messaging Interface (AMI) V1.0 is planned to be available in the same time frame as MQSeries Integrator V2.0, and will include support for it.

Refer to Software Announcement 299-147, dated June 15, 1999, for other MQSeries announcements, including a statement of direction about availability on other platforms.

At a Glance

Integrate, link, and extend your business applications with:

- Information modelling
- Routing and transformation
- Content-based publish/subscribe
- Visual tools
- Year 2000 and Euro ready

Open yet secure ...MQSeries Integrator cross-platform middleware is both scalable and manageable. It helps span the divide between business processes, and provide consistent information within and between enterprises.

For ordering, contact:
Your IBM representative, an IBM Business Partner, or IBM Americas
Call Centers at 800-IBM-CALL
Reference: YE010

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Key Prerequisites

- AIX V4.2 or V4.3
- Windows NT, V4.0
- SQL Server, V6.5

Planned Availability Date

December 10, 1999
The MQSeries family consists of three product groups that integrate the IT infrastructure of the enterprise and its partners.

**MQSeries Messaging** — robust middleware that integrates applications across 35-plus IBM and non-IBM platforms.

**MQSeries Integrator** — message brokering that centralizes the operating rules of your enterprise and intelligently performs message routing and dynamic message-content transformation and formatting.

**MQSeries Workflow** — you can capture, visualize, modify, and automate your business processes; enables application-to-application processes plus those involving people and applications.

The MQSeries family is a key technology for IBM e-business. It is the key technology for IBM business integration. The messaging industry is rapidly expanding, and companies need to implement e-business rapidly. Business Integration across many applications is a common element of successful implementation. MQSeries Integrator, V2.0 gives you the tools and adds value outside the message queuing paradigm to include application connectors and application collaboration.

**MQSeries Integrator:** MQSeries Integrator is a cross-platform middleware service — a powerful message broker — that manages:

- Business information and process models
- Information spaces and delivery networks and the subscription and distribution of information published in those spaces
- Information flow between decoupled business applications via rules external to the applications
- Message transformation; extending message based business processes through the use of operational policies and broker services

IBM has enhanced the MQSeries Integrator V1 technology. The MQSeries Integrator V2 product is upward compatible with the rules and formatter capability of V1. Within the new enhancements is a new architecture based on the concept of a “processor node.” A library of function for these nodes is provided by IBM, but you can add function.

Additionally, the V2 product has close synergy with relational data base technology in respect of message augmentation, warehousing, and message flow tools.

Dynamic publish/subscribe offers the full level of MQSeries integrity. The advanced message format dictionary and manipulation tools support multiple formats including XML, plug-in, and third-party dictionaries and formats.

**MQSeries Integrator, V2.0** uses MQSeries to carry messages. It simplifies the complexity of connections between applications by establishing a hub through which:

- Messages pass
- Operations on messages can be performed
- Enterprise-defined rules can be intelligently applied

**Operations on messages include:**

- Filtering
- Computation from message content
- Generating messages by data extraction from databases
- Directing messages to the dynamic Integrator publish/subscribe function

Reformatting works dynamically with the rules component to parse, map, and reformat messages by using on-the-fly conversions and transformations.

Message formats can be self-defining using XML, or defined using an IBM-provided format repository or third-party message dictionaries. Predefined templates mean MQSeries Integrator, V2.0 can exchange information with major packaged applications.

**Features of MQSeries Integrator**

- **Configurable data flow framework** allows: Filter operations and manipulation and enrichment of message content
  - Extraction of databases (DB2® on AIX, and DB2 and SQL Server on Windows NT)
  - Delivery of messages to dynamic (client controlled) subscribers
  - Warehousing
  - Invocation of third-party provided message processing capabilities
- **GUI tools** define, deploy, and administer the message processing services that act on a message stream. A visual builder for designing message processing services is included. These services can be updated while the broker is active to respond to changing business needs and allow continuous online operation.
  - A graphical editor for defining publish/subscribe broker topology is also included.
- **Publish/subscribe service** includes:
  - Routing a message to interested subscribers on both the message topic and content
  - Authorization based on hierarchically-structured topic-name space
  - Support for flexible multiple-broker network topology for publish/subscribe use
  - Compatibility with MQSeries V5 base publish/subscribe function allows interoperation or interception of base messages
- **Compliance with industry standards** such as XML and SQL
- **Self-Defining messages with XML syntax** and **Messages defined through a dictionary** — the IBM-provided dictionary, the NEON dictionary provided with MQSeries Integrator V1, or third-party dictionaries, such as TSI Mercator
- **National language messages** flow through the system (user messages and GUI panels are in U.S. English)
Benefits of MQSeries Integrator

- Bridges and adapts between mixed application environments using industry-standard protocols and technologies. MQSeries Integrator, V2.0 supports GOLD messaging (using a separately available dictionary). GOLD is the messaging standard established for the banking industry by IBM and Integron to support core banking, bill presentment, bill payment, small business, and investments.
- Simplifies programming of application messaging with new higher-level language interfaces.
- Enables use of the facilities that support each of these activities, together or individually.
- Supports clients using the MQSeries MQI application program interface.
- Supports clients built using a new MQSeries Application Messaging Interface (AMI).

A technology release will feature support for publish/subscribe applications using the JMS publish/subscribe interfaces.

AMI V1.0 will be available in the same time-frame as this product. The AMI is a new high-level MQSeries application program interface for use with MQSeries messaging and MQSeries Integrator, V2.0. It enables the development of applications that are unaware of the transport method in use (although in this release MQSeries will be the transport).

MQSeries Integrator, V2.0 includes a full license for MQSeries and for MQSeries Integrator Version 1, on the corresponding platform.

Transaction Processing SupportPacs: The IBM Transaction Processing SupportPacs library consists of material that complements the family of MQSeries products marketed by IBM. Each SupportPac™ supplies a particular function or service that can be used with one or more of the MQSeries products. The Transaction Processing SupportPacs library is available on the Internet at URL:

http://www.ibm.com/software/mqseries/txppacs

Year 2000

These products are Year 2000 ready. When used in accordance with their associated documentation, they are capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided that all products (for example, hardware, software, and firmware) used with the products properly exchange accurate date data with them.

The service end date for these Year-2000-ready products is December 31, 2001.

Product Positioning

Industry trends and business drivers, such as e-business and supply chain integration, drive the need to link and extend existing and new business systems rapidly.

The MQSeries Message Broker strategy and product family represents IBM’s response to this market need. MQSeries Integrator, V2.0, a part of this initiative, addresses business and application integration through the management of information flow with:

- Information modeling
- Routing and transformation
- Publish/subscribe

System connectivity is typically enhanced into application integration by developers who write code to capture, evaluate, translate and reformat data from source applications to a format understood by destination applications.

MQSeries Integrator V1, already available on these platforms, is a toolkit that greatly simplified the burden of creating mutual understanding between source and receiving applications. Additionally, the rules engine can test the content of messages and modify flow including rerouting, creating additional messages, or similar business automation activities.

Compare MQSeries Integrator, V2.0 to V1:

- Backward compatibility with rules, formats, and templates
- Publish/subscribe function compatible with the existing MQSeries publish/subscribe offering, and with a high level of service, including subject/content distribution and static/dynamic subscription
- Compatibility with higher levels of integration including workflow and state management systems
- Compatibility and exploitation of directory, warehousing, or transactional capability as provided by a host system
- Compatibility with relevant standards, such as OMG, EJM, XML/EDI, and ERP formats

To protect customer investment, this product is an evolutionary step forward from MQSeries Integrator V1, which is included with it.

Advantages of V2:

- Allows multiple uses with parallel operation across multiple brokers
- Simplifies support of multiple environments with multiple application adapters, templates, and tools
- Programmed easily via the AMI (available separately)
- Extensible via an architecture framework published with specifications for how alternative rules, formats, warehouse, directory, security, encryption, compression, or other services may be attached

Trademarks

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IBM US
Announcement
Supplemental Information

June 15, 1999

Education Support

The appropriate curriculum will be updated, as necessary, to include the enhancements described in this announcement.

Details of the education support will be provided by planned availability through separate education announcement.

Descriptions of all classroom and self-study courses are available.

For MQSeries® courses, access:

http://www.ibm.com/software/ts/mqseries

Call IBM Education and Training at 800-IBM-TEACH (426-8322) for education catalogs, schedules, and enrollments.

Publications

An MQSeries Integrator Installation Guide is included with these programs. The following books are shipped on the product CD in PDF format only:

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<th>Hardcopy</th>
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<td>Introduction and Planning</td>
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<td>Messages</td>
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PDF files will be available from the WWW after planned availability.

Hardcopy books can be ordered from country program libraries after planned availability. To order, contact your IBM representative.

Related Books: Family

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<tr>
<th>Title</th>
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<tr>
<td>Planning Guide</td>
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<td>Application Programming Guide</td>
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<td>Intercommunication</td>
<td>SC33-1872</td>
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<td>Introduction to Messaging and Queuing Messages</td>
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Open Blueprint®: MQSeries consistent, cross-platform API is the Message Queue Interface (MQI), a component of the Open Blueprint.

MQSeries is a member of the Message-Oriented Middleware Association (MOMA) and the Electronic Messaging Association (EMA).

Technical Information

Specified Operating Environment

Hardware Requirements: Any Year-2000-ready vendor hardware that is explicitly compatible and fully capable of running the specified operating system, the corresponding supporting software, and associated applications unmodified. Responsibility to provide statement of full compatibility between machines lies with the original equipment provider.

Server Products
- RS/6000™ processors
- Intel-based systems (or equivalent), various manufacturers

Software Requirements: Refer to the MQSeries home page for the latest information:

http://www.ibm.com/software/ts/mqseries

Displayable Softcopy Publications: MQSeries Integrator manuals are offered in display softcopy form.

The displayable manuals are part of the basic machine-readable material. The files are shipped on the same media type as the basic machine-readable.

These displayable manuals are available in PDF format, and some are also available in HTML format.

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: http://www.ibm.com.
Operating Systems for Server Products
- AIX® V4.2
- Windows NT®, Version 4.0

Operating Systems for Database Administration Applications
- Microsoft™ Windows NT Workstation, V4.0
- Microsoft Windows NT Server, V4.0

Databases Supported
- DB2®, Version 5.0 or V6.0
- SQL Server, V6.5 for Windows NT product only

Interoperability: For details on MQSeries family platforms, messaging links, gateways and interfaces, MQSeries Integrator platforms, MQSeries Workflow platforms, and additional information, access:


Limitations: Available in U.S. English only. The products not translated to other languages in this release.

Planning Information

The price model is linked to the number of processors per machine or node on which the MQSeries Integrator programs will run. The machines relate to a required number of MQSeries Integrator Capacity Units. Additional capacity units are required as you move to larger systems, or add new systems to accommodate your business use of MQSeries Integrator. A similar-priced model is used on the base MQSeries products; however capacity units are not interchangeable with those from base MQSeries.

MQSeries Integrator Machine List RS/6000 Processor Tables:
- Two MQSeries Integrator Capacity Units required (included in Program Package) per machine
  - CXX
  - E30
  - F3L
  - F40
  - IntelliStation™
  - M20
  - M22W
  - 2XX
  - 397, 3XX
  - 4XX
  - 43P
- Four MQSeries Integrator Capacity Units required per machine
  - F50, FXX
  - GXX
  - 595, 5XX
- Six MQSeries Integrator Capacity Units required per machine
  - J50, JXX
  - R50, RXX
  - S70 (1 to 8 processors)
  - SP® (1 to 32 processors)
  - 6XXSP (1 to 32 processors)
  - 9XX
  - Any server (except S70, SP, or 6XX SP) with more than 8 processors
- Eight MQSeries Integrator Capacity Units required per machine
  - S70 (more than 8 processors)
  - SP (more than 32 processors)
  - 6XX SP (more than 32 processors)

Intel-Based Systems Processor Tables
- Two MQSeries Integrator Capacity Units required (included with Program Package) per machine
  - 386 (1 to 4 processors)
  - 486 (1 to 4 processors)
  - Pentium™ (1 to 2 processors)
  - PentiumPro (1 processor)
  - Pentium II (1 processor)
  - Pentium III (1 processor)
- Four MQSeries Integrator Capacity Units required per machine
  - Pentium (3 to 4 processors)
  - PentiumPro (2 to 4 processors)
  - Pentium II (2 to 4 processors)
  - Pentium III (2 to 4 processors)

Transferability

MQSeries Integrator generic capacity units are intended to be transferable across MQSeries Integrator platforms that appear in the same MQSeries Integrator Transfer Group. The MQSeries Integrator Transfer Group will generally, but not exclusively, define MQSeries Integrator products at a consistent version (V2) and release level.

- MQSeries Integrator Transfer Group A
  - AIX, V1.0, V1.1
  - Windows NT, V1.0, V1.1
  - Sun Solaris, V1.0, V1.1
  - HP-UX, V1.0, V1.1
  - AS/400®, V1.1
  - Windows NT, V1.0 Development License
- MQSeries Integrator Transfer Group B
  - AIX, V2.0
  - Windows NT, V2.0
  - Windows NT, V2.0 Development License

Upgrade to MQSeries Integrator, V2.0: Passport Advantage Subscription customers with MQSeries Integrator V1 can obtain upgrades to MQSeries Integrator, V2.0 up to the currently authorized level of use.

Upgrade from Developer to full IBM MQSeries Integrator License: Acquire upgrades from your current authorized Development License to the corresponding full MQSeries Integrator license by obtaining the Upgrade to Full License with the appropriate number of capacity units part number.

Customer Responsibilities: You must provide at least the minimum hardware and software environments in which the licensed programs operate.

Customers must identify the machine on which they will install the MQSeries Integrator products, and purchase the required number of capacity units with their program package order.
Problem determination (PD) is a customer responsibility. PD is an assessment of whether a problem is caused by hardware or software. PD is complete only when the cause of the problem is identified. This assessment includes examination of available symptoms using the PD procedures documented in the product.

Problem source identification (PSI) is a customer responsibility. PSI begins when software is determined to be the source of the problem. PSI includes tracing the source of the program to a host system control program (SCP), an application program, or another source. Assisting the customer with PSI is an IBM service and support responsibility.

**Packaging:** Media is on CD-ROM only. It contains program code, PDF files of the publications for viewing online, and HTML files for selected publications. It also contains the complete appropriate MQSeries product necessary to run MQSeries Integrator, V2.0, or for other use.

The package also contains:
- MQSeries Clients CD-ROM
- MQSeries Integrator V1
- IBM International Program License Agreement
- Proof of Entitlement
- Registration Card
- MQSeries Integrator Installation Guide
- Relevant MQSeries Quick Beginnings manual
- MQSeries Integrator Processor Group List

**Security, Auditability, and Control**

MQSeries uses the security and auditability features of the workstation operating system.

In addition, MQSeries implements a level of security including access control of queues and authorization identification between message queue managers.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

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### Ordering Information

**Upgrade Protection (Entitled Customers):** Customers who have previously acquired Passport Advantage Upgrade Protection can obtain upgrades to MQSeries Integrator, V2.0 at no additional charge.

### Terms and Conditions

**Licensing:** IBM International Program License Agreement. Proofs of Entitlement (PoE) are required for all authorized use.

**Limited Warranty Applies:** Yes

**Program Services:** Available until December 31, 2001

**Money-back Guarantee:** 30-day, money-back guarantee

**Copy and Use on Home/Portable Computer:** No

**Usage Restriction:** Yes, processor-based usage

**Volume Orders:** Yes, contact your IBM representative

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**Passport Advantage Applies:** Yes

**Passport Advantage Subscription Applies:** Yes

**Upgrades:** Customers can acquire upgrades up to the currently authorized level of use of the qualifying programs.

**AIX/UNIX® Upgrade Protection Applies:** No

**Entitled Upgrade for Current AIX/UNIX Upgrade Licensees:** No

**AS/400 Software Subscription Applies:** No

**Variable Charges Apply:** Yes

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### Charges

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* One-Time Charge

**Passport Advantage:** For Passport Advantage ordering information and charges, contact your Lotus® representative or authorized IBM Lotus Business Partner. Additional information is also available on the Passport Advantage URL:

http://www.lotus.com/passportadvantage

**Variable Charges:** The applicable processor based OTC will be based on the group of the designated machine on which the program is licensed for use. If the program is designated to a processor in a group for which no charge is listed above, the charge of the next higher group listed applies. For movement to a machine in a higher group, an upgrade charge equal to the difference in the then current charges between the two groups will apply. For movement to a machine in a lower group, there will be no adjustment or refund of charges paid.

**Customer Financing:** IBM Global Financing offers attractive financing to credit-qualified commercial and government customers and Business Partners in more than 40 countries around the world. IBM Global Financing is provided by the IBM Credit Corporation in the United States. Offerings, rates, terms and availability may vary by country. Contact your local IBM Global Financing organization. Country organizations are listed on the Web at:

http://www.financing.ibm.com

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Reference: YE010

To identify your local IBM Business Partner or IBM representative, call 800-IBM-4YOU.

Note: Shipments will begin after the planned availability date.