IBM MQSeries Family Enhancements and Logo for Windows 2000

Overview
The MQSeries family includes assured message delivery on multiple platforms and gives you a variety of ways to program your e-business solutions.

The MQSeries messaging family continues to evolve by adding:

- An updated MQSeries for Windows NT and Windows 2000 program
- Several enhanced Product Extensions available via the Internet
- Extended support for new levels of AIX® and OS/400® operating systems

An updated release of MQSeries for Windows NT and Windows 2000, V5.2.1 has been awarded the Microsoft Certified for Windows 2000 Server logo. Microsoft provides its logo to help applications work better together on Windows 2000. Version 5.2 remains available.

The new and updated MQSeries product extensions further enhance this programming and e-business capability:

- MQSeries Application Messaging Interface (AMI) Version 1.2 now offers an open policy-handler framework, which allows the functionality of the AMI to be easily extended by vendors or customers. AMI definitions can also be stored in an LDAP directory.
- MQSeries Java™ Message Service (JMS) Version 5.2 includes new features including two-phase commit and additional performance improvements. JMS has increasing focus in the MQSeries family.
- MQSeries Internet pass-thru Version 1.1 can be used to implement messaging solutions between remote sites across the Internet. New security features and administration are added in this release.
- MQSeries High Availability SupportPacs provide examples and function to utilize high availability support on Windows NT and 2000, AIX, Sun Solaris, Compaq Tru64, and HP-UX platforms.

Support for MQSeries V5.2 is extended to OS/400 V5R1, and AIX V5R1. MQSeries Capacity Unit pricing on the base product is clarified.

This announcement also previews availability of MQSeries JMS support on OS/390® and iSeries, and of AMI V1.2 (which will replace V1.1) on iSeries.

Previews provide insight into IBM plans and direction. Availability, prices, ordering information, and terms and conditions will be provided when the product or SupportPac™ is announced.

Key Prerequisites
Product Extensions
SupportPac and Product Extension information is on the Web:
http://www.ibm.com/software/mqseries/txppacs/

MQSeries for Windows NT and Windows 2000, V5.2.1
- Microsoft Windows NT 4.0 Service Pack 6a, or later
- Microsoft Windows 2000 with any service packs

Refer to Software Requirements.

At a Glance
Enhancements to the MQSeries family simplify programming and extend use on the Internet and elsewhere

- A new release of the Application Messaging Interface (AMI) makes writing messaging programs easier.
- MQSeries support for the Java Message Service extended to further support the WebSphere™ environment.
- MQSeries Internet pass-thru includes enhanced security and administration.
- High Availability SupportPacs now available on six distributed platforms.
- MQSeries for AS/400®, V5.2 support extended to OS/400 V5R1.
- Support for MQSeries for AIX extended to AIX V5.1 (Power edition).

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

Planned Availability Date
- AMI V1.2: June 29, 2001, via the Internet only
- Internet pass-thru V1.1 and JMS V5.2: Available now via the Internet only
- High Availability Enhancements: Available now via the Internet only

Note that the SupportPacs for iSeries version of the AMI and iSeries and zSeries versions of the JMS are previews and are available later.

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.
Performance improvements

- Support includes the following new features:

  - Connection and Session Pooling — When a piece of application code has finished using a connection to the MQSeries queue manager, that connection can be held open in a "pool" for subsequent reuse by other application code. This means that the overhead of creating a (possibly remote) connection is reduced.

  - MQSeries AMI V1.2: AMI makes writing a messaging program simpler. Programmers can concentrate on business logic without worrying about message handling. Applications communicate with services, which separate the physical resources and make it very simple to communicate with message brokers such as MQSI V2. Policies, which describe how messages are handled, are held separately. In general, they can be changed without affecting the applications that use them.

  - AMI makes writing a messaging family provides a versatile platform for e-business. Companies need to be agile to survive. The MQSeries e-business is accelerating the pace of change. Speed to announcement also previews availability of AMI V1.2.

  - In addition, support for the AMI V1.1 with MQSeries for OS/390 and iSeries.

  - MQSeries AMI V1.1 with MQSeries for AS/400, V5.1 and V5.2 is available now. This announcement also previews availability of AMI V1.2 support on iSeries. Previews provide insight into IBM plans and direction. Availability, prices, ordering information, and terms and conditions will be provided when the product or SupportPac is announced.

  - With the AMI, programmer productivity is increased, reducing programming backlog; and your response time on market changes and opportunities is improved.

  - The AMI provides support for:

    - MQSeries messaging products
    - MQSeries Publish/Subscribe
    - MQSeries Integrator Version 1.1
    - MQSeries Integrator Version 2.0

  - The SupportPac supplies the MQSeries AMI for Microsoft Windows 98, Microsoft Windows NT, AIX, Sun Solaris, HP-UX (V11.0), and iSeries.

  - The MQSeries AMI is separately provided as part of MQSeries for OS/390 Version 5.2.

  - More information is available at:


Java Message Service (JMS), V5.2: MQSeries JMS support includes the following new features:

  - Performance improvements increase message throughput, both point/point and publish/subscribe. In addition, significant advantages accrue from the use of the Queue Manager in the MQSeries 5.2 products.

  - Connection and Session Pooling — When a piece of application code has finished using a connection to the MQSeries queue manager, that connection can be held open in a "pool" for subsequent reuse by other application code. This means that the overhead of creating a (possibly remote) connection is reduced.

  - Publish/subscribe usability improvements.

    - Administrators can configure the way that the MQSeries JMS implementation internally allocates queues to JMS subscriptions.

    - A JMS V5.2 function automatically cleans up orphaned Pub/Sub subscriptions without manual intervention.

    - Administrators can choose the names of the internal queues used to hold subscriptions. This allows the queues to be monitored by MQSeries system management software.

  - Global Transaction (Two-phase commit) support. A JMS message can be sent or received in a "global transaction," specifically a transaction that also includes database updates. The JMS send/receive and the database update share a common fate. If the transaction completes successfully both the database update and the JMS update are committed. If the transaction fails, then both the database and the JMS updates are rolled back. Global transaction support allows applications to combine database and messaging operations reliably, particularly in a WebSphere environment.

  - Concurrent Message Listener support allows an application server developer, or sophisticated application writer to develop applications that can handle multiple incoming messages concurrently without requiring a large number of application threads. This is possible using the classes that support the ConnectionConsumer interface defined in the JMS specification.

  - MQSeries AMI V1.2 support on OS/390 and iSeries.

MQSeries Internet Pass-thru: MQSeries Internet pass-thru is an MQSeries base product extension that can be used to implement messaging solutions between remote sites across the Internet.

  - It makes the passage of MQSeries channel protocols into and out of a firewall simpler and more manageable. It tunnels the protocols inside HTTP, or acts as a proxy.

  - Used as a proxy, MQSeries Internet pass-thru is placed in the "demilitarized zone" (DMZ) outside an Internet firewall. It relays MQSeries protocol flows from an MQSeries client or Queue Manager on the Internet, to a destination Queue Manager inside the firewall. This enables inbound MQSeries communication through the firewall, from an address in the secure DMZ. This is likely to be more acceptable to firewall administrators than an arbitrary external Internet address.

  - Placing a pair of "pass-thru" servers in the path of an MQSeries channel connection enables HTTP wrappers to be added to the protocol flow, which enables the MQSeries connection to pass inbound through an HTTP application firewall.

  - Compared with the initial release, the V1.1 release, available now as a Product Extension, contains:

    - AIX and Windows 2000 platform support
    - HTTP proxy support to add further configuration options
    - Additional security by means of Secure Socket Layer (SSL) support
• The ability to communicate with another external pass-thru or MQSeries servers through a SOCKS proxy to provide a controlled exit point through a firewall.
• An Administration Client to make administration of one or more pass-thru servers easier.

MQSeries High Availability Support: High availability support is implemented in the following SupportPacs:

- MC63: MQSeries for AIX — Implementing with HACMP
- MC66: Configuring MQSeries with HP Service Guard for high availability
- MC68: Configuring MQSeries with Compaq TruCluster
- MC69: Configuring MQSeries with Sun Cluster 2.x
- MC74: MQSeries for Windows NT V5.1 — Microsoft Cluster Server support
- IC61: Configuring MQSeries Integrator for AIX with HACMP
- IC62: Configuring MQSeries Integrator for Solaris with Sun Cluster 2.x
- IC71: Configuring MQSeries Integrator for Windows NT V2 with Microsoft Cluster Server

MC74 is fully supported; the others are examples. These SupportPacs contain information about how to configure MQSeries to improve further the availability of MQSeries in a production environment. Documentation and shell scripts are included. The scripts may be used directly, or can be modified to match a particular environment.

The shell scripts typically include functions to:

• Create queue managers in a manner suitable for high availability
• Monitor the status of a queue manager
• Shut down and restart MQSeries in a suitable way

SupportPacs MC74 and IC71 also contain documentation, executables, and libraries.

Possible Uses: These SupportPacs can be used to construct standby, one-sided takeover, or active/active takeover cluster configurations. In a standby or active/active takeover configuration, one or more nodes act as standby for a queue manager running on another node. The standby nodes can also support workload. In a mutual takeover configuration, it is possible to run highly available queue managers on all nodes in the cluster and, in the event of a failure, for any affected queue managers to be able to restart on a surviving node.

MQSeries for Windows NT and Windows 2000, V5.2.1:

New features in this release include:

• Conformance with the Microsoft Certified for Windows 2000 logo (for Windows 2000 Server). Microsoft provides its logo to help applications work better together on Windows 2000.
• A new installation procedure for the MQSeries server and the MQSeries client uses the MQSeries Installation Launchpad, the MQSeries Installation wizard, and (for the server) the “Prepare MQSeries” wizard.
• A new security exit is supplied for the MQSeries client and MQSeries to provide authentication for MQSeries channels by using Windows security services.
• On Windows 2000, MQSeries V5.2.1 now publishes client connection channels in the Active Directory to provide dynamic client-server binding.

The Java CD-ROM shipped with the previous MQSeries for Windows NT and Windows 2000, V5.2 program, and the new download of Java described above are supported with V5.2.1, but neither is shipped in the box.

Accessibility by People with Disabilities

MQSeries for Windows NT and Windows 2000, V5.2.1

For Software Offerings: The following features support use by people with disabilities:

• Operation by keyboard alone
• Optional font enlargement and high-contrast display settings
• Speech recognition products tested for use by people with mobility impairment
• Optional display of audio alerts for people with hearing impairment

Product Positioning

The MQSeries family provides a versatile platform for e-business.

• MQSeries, the core of the MQSeries family, integrates over 35 platforms. Providing the base messaging functions for servers and clients, and assuring once only message delivery, it can be used alone or with other members of the family.
• MQSeries Adapter Offering provides the framework and tools to build and customize MQSeries adapters for existing and new, prepackaged or custom-developed applications.
• MQSeries Everyplace boosts the benefits of assured message delivery and rock-solid security to the failure-prone environment of mobile working.
• MQSeries Integrator, a powerful information broker, includes a one-to-many connectivity model plus transformation, intelligent routing, and information flow modeling across multiple, disparate business systems.
• MQSeries Workflow, a business process management system, enables the definition, execution, and swift change of complete business processes that span systems, applications, and people.

In addition, Product Extensions provide additional supported function available as a download from the Internet.

Trademarks

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MQSeries, AIX, OS/400, OS/390, and AS/400 are registered trademarks of International Business Machines Corporation in the United States or other countries or both.
Windows, Windows NT, and Microsoft are trademarks of Microsoft Corporation.
Java is a trademark of Sun Microsystems, Inc.
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**Education Support**

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

Details of education support will be provided by May 8, 2001, through a separate education announcement.

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

For MQSeries® courses, access:


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

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**Technical Information**

**Hardware Requirements**

*Application Messaging Interface:* The following platforms are supported:

- Windows NT V4 and Windows 2000
- Windows 98 and Windows Me (MQSeries client only)
- AIX®
- Sun Solaris
- HP-UX (V11)
- iSeries (available at V1.2 after other platforms)

**Note:** The MQSeries AMI Administration Tool is supported only in the Windows NT or Windows 2000 environment.

The AMI on OS/390® continues to be supported at the V1.1 level, via MQSeries for OS/390, V5.2. In addition, the V1.1 level for iSeries continues to be supported.

The AMI is supported in C, C++, and Java.

**Note:** COBOL is also supported on V1.1 supplied with MQSeries for OS/390.

Supported compilers are on the base product for programming to the Message Queuing Interface.

Refer to the SupportPac® (MA0F) for further information. SupportPac information may be found at Web site:


**Java Message Service:** The following platforms are supported for V5.2

- AIX V4.3.3
- HP-UX 10-20
- HP-UX 11
- Linux for Intel
- Linux for S/390®
- Sun Solaris
- Microsoft® Windows 95
- Microsoft Windows 98
- Microsoft Windows NT
- Microsoft Windows 2000

The previous version of the MQSeries classes for Java V5.1.2 (but not JMS support) is available on iSeries, but will be upgraded to V5.2, including JMS. This will be available after other V5.2 platforms. MQSeries for OS/390 will also be supported at the V5.2 level.

The V5.2 MQSeries classes for Java replace the V5.1.2 Java support shipped in MQSeries V5.2, but are available only via the Internet. MQSeries for Windows NT and Windows 2000, V5.2.1 no longer ships the Java support in the box. You can obtain the JMS CD in the previous V5.2 product, or download the later version from the Internet.

Refer to the SupportPac (MA88) for prerequisites.

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**Offering Information**

Product information is available through Offering Information (OITOOL) at:


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**Publications**

The following books describe the AMI and Java™ programming:

<table>
<thead>
<tr>
<th>Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQSeries Application Messaging Interface</td>
<td>SC34-5604</td>
</tr>
<tr>
<td>MQSeries: Using Java</td>
<td>SC34-5456</td>
</tr>
</tbody>
</table>

These publications and information on using MQSeries Internet pass-thru are available in soft copy with the product extensions.

**MQSeries for Windows NT™ and Windows™ 2000:** Refer to Software Announcement 200-343, dated October 3, 2000, for publication information on MQSeries V5.2.

PDF files can be downloaded from the Web after availability. Printed installation instructions are provided in multiple languages in the product box. The Introduction is provided in hard copy in U.S. English only. Other national language versions of books are only available from the product CD-ROM or the Internet.

Hardcopy books can be ordered after May 25, 2001. To order, contact your IBM representative.

**Displayable Softcopy Publications:** MQSeries Everyplace™ manuals are offered in displayable softcopy form as 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.

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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](http://www.ibm.com).
MQSeries Internet Pass-Thru: The following platforms are supported for V1.1:
- AIX V4.3.3
- Sun Solaris 7
- HP-UX 11
- Microsoft Windows NT 4.0
- Microsoft Windows 2000 (Workstation or Server)

Refer to the SupportPac (MS81) for hardware and software prerequisites.

The network protocol supported by MQSeries Internet pass-thru is TCP/IP.

MQSeries High Availability SupportPacs: The following platforms are covered by separate SupportPacs:
- MC63: AIX V4.3
- MC66: HP-UX V10 (V11 in preparation)
- MC68: Compaq Tru64 V4.0.F or V5.1
- MC69: Sun Solaris 2.6, 7, or 8 (Sun Cluster)
- MC74: Windows 2000 (Advanced server)

MC74 is fully supported (Category 3); the others are examples.

High availability SupportPacs are also available for MQSeries Integrator. Refer to the SupportPacs Web pages for details and prerequisites.

High availability support for a Parallel Sysplex® is already part of the MQSeries for OS/390 product.

MQSeries for Windows NT and Windows 2000, V5.2.1

Requires one of:
- Microsoft Windows NT 4.0 Service Pack 6a, or later
- Microsoft Windows 2000 with any service packs

MQSeries for Windows NT and Windows 2000, V5.2.1: Requirements are for the product with the Windows 2000 Logo. The requirements for the initial release without the logo remain unchanged.

Hardware Requirements: Any Year 2000-compliant 32-bit Intel PC hardware (or equivalent) explicitly compatible with and fully capable of running the specified operating system, all the corresponding supporting software shown below, and any associated applications unmodified. Responsibility to provide statement of full compatibility between machines lies with the original equipment provider.

MQSeries for Windows NT and Windows 2000, V5.2 runs on the Integrated xSeries Server available for the IBM iSeries.

Protocols: Network protocols supported are NetBIOS, SNA LU6.2, TCP/IP, and SPX.

Software Requirements: Software requirements are identical for server and client Windows NT environments unless otherwise stated.
- Windows NT V4.0, to include TCP/IP, NetBIOS, and SPX with Service Pack 6a
- Windows 2000 (Professional, Server, or Advanced Server Editions)

Prerequisites (Windows NT only, supplied with Windows 2000)
- Internet Explorer 4.0.1 with SP1®, or later
- Netscape Navigator 4.04 with Java AWT, or later
- HTML Help V1.22 (for Web Administration)
- Microsoft Active Directory Client Extensions (ADCE) for Windows NT (on the CD)
- Microsoft Management Console V1.1 (on the CD)

Connectivity
- IBM Communications Server for Windows NT, V5.0, or V6.0
- Attachmate Extra! Personal Client, V6.5
- Microsoft SNA Server, V4.0
- IBM Personal Communications V4.3.1.1 or V5.0
- TCP/IP provided by operating system
- NetBIOS provided by operating system
- SPX provided by operating system

Options
- External Transaction Processing Monitors (Server only):
  - WebSphere™ V3.0x (Windows NT only) or 3.5
  - BEA Tuxedo V6.5 (Windows NT only) or V7.1
  - MTS/COM+
- Databases (Server only):
  - DB2 Universal Database® V6.1 and V7.1
  - Oracle 8i and 9i R2
  - Sybase Adaptive Server Enterprise, V11.5, Sybase XA-Server V11.1.1, Sybase Open client V11.1, and
    Sybase Embedded SQL/C V11.0
  - Sybase Adaptive Server, V12 with DTM option (supported on Windows NT 4.0 only).
- LDAP (Server only):
  - Netscape Directory Server 3.1 with relevant Year 2000 fixes
- Supported for use with MQSeries client for Windows NT and Windows 2000 only:
  - Microsoft Windows Terminal Server feature

DCE Supported
- IBM DCE V1.1

To enable users to run the MQ-supplied DCE send, receive, or message exits, this must be the U.S. domestic version supporting DES encryption.

DCE names and security modules for MQSeries are provided as part of the MQSeries for Windows NT and Windows 2000 product.

DCE support for Windows 2000 is not yet available.

Programming: Supported programming languages and compilers for application development
- Microsoft Visual C++ for Windows 95 and Windows NT V6.0, or V6.1
- VisualAge® for C++ for Windows V3.5
- VisualAge COBOL Enterprise, V2.2
- VisualAge for PL/I for Windows
- VisualAge PL/I Enterprise V2.1
- Merant Net Express V3.0, V3.1
- Microsoft Visual Basic for Windows, V5.0 and V6.0

Software Requirements: MQSeries SupportPacs are frequently updated; refer to the SupportPac directly for the latest information. The following shows the requirements at the time of this announcement, but the information is subject to change.
Note: The AMI on OS/390 is not included in this announcement.

- MQSeries for Windows NT V5.1, or MQSeries for Windows NT and Windows 2000, V5.2 (or 5.2.1)
- MQSeries for AIX V5.1 or V5.2
- MQSeries for Sun Solaris V5.1 or V5.2
- MQSeries for HP-UX (V11) V5.1 or V5.2 (V11).
- MQSeries for AS/400®, V5.2

For an MQSeries client environment, one of the following:

- MQSeries Client for Windows NT V5.1 or MQSeries client for Windows NT and Windows 2000, V5.2
- MQSeries Client for Windows 95 and Windows 98 V5.1 or V5.2
- MQSeries Client for AIX V5.1 or V5.2
- MQSeries Client for Sun Solaris V5.1 or V5.2
- MQSeries Client for HP-UX (V11.0) V5.1 or V5.2

The MQSeries AMI Administration Tool is supported only in the Windows NT or Windows 2000 environment.

Refer to the SupportPac (MA0F) for further information on the AMI and service updates required.

Java Message Service: To run MQSeries classes for Java Message Service, you require:

- MQSeries classes for Java (as supplied in the SupportPac)

To use Pub/Sub applications, you also need one of:

- SupportPac MA0C: MQSeries Publish/Subscribe
- MQSeries Integrator V2

To run MQSeries classes for Java, you require:

- An MQSeries server. For JNI connections this must be MQSeries V5.1 or V5.2.
- MQSeries V5.2 is required to use the JMS JTA/XA interface.

If a TCP/IP client connection is used, the application does not have to reside on the system hosting the MQSeries server.

- Java Developers Kit (JDK) for the server platform.
- JDC, or Java Runtime Environment (JRE), or Java-enabled Web browser for client platforms.

Supported JDK versions:

- AIX — IBM JDK 1.2.2, 1.3.0
- iSeries (AS/400) — IBM JDK 1.2.2
- HP-UX 10-20 — HP JDK 1.1.8
- HP-UX 11 — HP JDK 1.2.2, 1.3.0
- Linux for Intel — IBM JDK 1.3.0
- Linux for S/390 — IBM JDK 1.2.2
- Solaris — Sun JDK 1.2.2, 1.3.0
- Windows 95, 98, NT, 2000 — IBM JDK 1.2.2, 1.3.0

Only TCP/IP client connectivity is supported on HP-UX V10.20, Linux, Windows 95, and Windows 98.

For further information about the Java Message service (JMS) support, refer to SupportPac (MA88).

MQSeries Internet Pass-thru: One of:

- Microsoft Windows NT 4.0, with Service Pack 3
- Microsoft Windows 2000
- AIX V4.3.3
- HP-UX 11
- Sun Solaris 7
- JDK 1.2.2, or later compatible release

Note: Earlier releases of JDK (V1.1.7, or later) may also be used.

The network protocol supported by MQSeries Internet pass-thru is TCP/IP.

For further information about MQSeries Internet pass-thru refer to the SupportPac (MS81).

MQSeries High Availability SupportPacs: The following platforms are covered by separate SupportPacs:

- MC63: AIX V4.3
- MC66: HP-UX V10 (V11 in preparation)
- MC68: Compaq Tru64 V4.0.F or V5.1
- MC69: Sun Solaris 2.6, 7, or 8
- MC74: Windows 2000 (Advanced server)

Refer to the SupportPacs for further prerequisites.

MQSeries Web pages have the latest information:

http://www.ibm.com/software/mqseries/supported.html

For Product Extensions and SupportPacs, refer to:

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

Interoperability

Support of the MQSeries for AIX, V5.2 is extended to AIX V5.1.

Support of the MQSeries for AS/400, V5.2 is extended to OS/400® V5R1.

Support summary for MQSeries iSeries programs:

Compatibility of MQSeries for AS/400 with OS/400 Releases

<table>
<thead>
<tr>
<th>Product/Release</th>
<th>OS/400 V4R2 and V4R3</th>
<th>OS/400 V4R4</th>
<th>OS/400 V4R5</th>
<th>OS/400 V5R1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQSeries 4.2.1 supported?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>MQSeries 5.1 supported?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>MQSeries 5.2 supported?</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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

http://www.ibm.com/software/mqseries/platforms
Performance Considerations: Performance of the system is dependent on the speed and latency of transmission links, the speed of processors and storage media used in devices and servers, and the total demand on server resources.

Planning Information

Product extensions are supplied at no additional charge to MQSeries customers, including:

- AMI
- Java and JMS support
- Internet pass-thru
- High Availability Support Pacs

Clarification of Capacity Unit Requirements for MQSeries Products: This section applies to all MQSeries server products priced using MQSeries capacity units. For base MQSeries products, the changes described were effective October 2000. For MQSeries V5.2, the effective date was October 3. For other platforms it was October 17. The two tables described as “old” and “new” below relate to changes before and after those dates.

The capacity units described are those for MQSeries base products. Different, non-interchangeable units are used for other products in the MQSeries family.

- The pricing for MQSeries servers is based on capacity units, with each processor group requiring a certain number of capacity units. The boxed program package includes two capacity units, but additional capacity units may be required. The table controlling the number of capacity units required per processor group has changed.
- The old and new requirements are shown below:

Old Table: Capacity unit requirements for the High Security Edition of MQSeries Everyplace V1.0 and 1.1 (but not V1.2) are three times the number shown.

<table>
<thead>
<tr>
<th>Description</th>
<th>Total MQSeries Capacity Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel Uniprocessor machines</td>
<td>2</td>
</tr>
<tr>
<td>Intel 2-way SMP machines</td>
<td>4</td>
</tr>
<tr>
<td>+ RISC 1-2 processors per box/SP node</td>
<td></td>
</tr>
<tr>
<td>Intel/RISC 3-4 processors per box/SP node</td>
<td>6</td>
</tr>
<tr>
<td>Intel/RISC 5-8 processors per box/SP node</td>
<td>10</td>
</tr>
<tr>
<td>Intel/RISC 9-16 processors per box/SP node</td>
<td>14</td>
</tr>
<tr>
<td>Intel/RISC 17-24 processors per box/SP node</td>
<td>16</td>
</tr>
<tr>
<td>Intel/RISC more than 24 processors per box/SP node</td>
<td>30</td>
</tr>
</tbody>
</table>

New Table: MQSeries Processor Group List

Capacity unit requirements for the High Security Edition of MQSeries Everyplace V1.0 and 1.1 (but not V1.2) are three times the number shown.

<table>
<thead>
<tr>
<th>Description</th>
<th>Total MQSeries Capacity Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel Uniprocessor Machines</td>
<td>2</td>
</tr>
<tr>
<td>Intel 2-Way SMP Machines</td>
<td>4</td>
</tr>
<tr>
<td>+ RISC 1-2 Processes Per Box/SP Node</td>
<td></td>
</tr>
<tr>
<td>Intel/RISC 3-8 Processes Per Box/SP Node</td>
<td>8</td>
</tr>
<tr>
<td>Intel/RISC 9-23 Processes Per Box/SP Node</td>
<td>16</td>
</tr>
<tr>
<td>Intel/RISC 24 or More Processors Per Box/SP Node</td>
<td>30</td>
</tr>
</tbody>
</table>

- To order a new license of an MQSeries server product, use the new capacity unit table.
- To upgrade from earlier releases of MQSeries using Passport Advantage within the same processor group (in the new table), you do not need to order any additional capacity units, even if the number of Capacity Units required for your processor group increased using the new table. To upgrade from an earlier release of MQSeries using Passport Advantage with a different processor group (in the new table), use the Capacity Units you have (which may be based on the old table), and then acquire additional Capacity Units (if necessary) to satisfy the requirements of the new table. Any “spare” Capacity Units may be used towards other MQSeries entitlement, but are not refundable.

Customers with current upgrade protection in Passport Advantage who use MQSeries on the same machine can continue to get upgrades without purchasing more Capacity Units.

- Customers who upgrade should retain their original product as proof of entitlement to use with the old table.

MQSeries for AS/400: These tables were changed at the same time as the other base MQSeries products.

Old Table

<table>
<thead>
<tr>
<th>Description</th>
<th>Total MQSeries Capacity Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor group P05</td>
<td>2</td>
</tr>
<tr>
<td>Processor group P10</td>
<td>3</td>
</tr>
<tr>
<td>Processor group P20</td>
<td>4</td>
</tr>
<tr>
<td>Processor group P30</td>
<td>6</td>
</tr>
<tr>
<td>Processor group P40</td>
<td>8</td>
</tr>
<tr>
<td>Processor group P50</td>
<td>10</td>
</tr>
</tbody>
</table>

New Table

MQSeries Processor Group List

<table>
<thead>
<tr>
<th>Description</th>
<th>Total MQSeries Capacity Units Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor group AS/400 P05</td>
<td>2</td>
</tr>
<tr>
<td>Processor group AS/400 P10 and P20</td>
<td>4</td>
</tr>
<tr>
<td>Processor group AS/400 P30 and P40</td>
<td>8</td>
</tr>
<tr>
<td>Processor group AS/400 P50</td>
<td>16</td>
</tr>
</tbody>
</table>

Ordering for MQSeries for AS/400 V5.2 is via the iSeries (AS/400) configurator.

iSeries customers with current Software Subscription can upgrade for no additional charge in the same way as Passport Advantage customers.

Customers without Software Subscription who wish to upgrade need to buy upgrades from V3.x based on Capacity Units in the new table.

For further pricing and licensing information, visit:

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

Customer Responsibilities: The customer must provide the minimum hardware and software environments in which the licensed programs run.

The customer must identify the machines on which they will install MQSeries. The customer or Program Provider will identify the tier in which they fit, and then calculate the level of Capacity-Unit Charge for the required Use Authorization.
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.

Installability: MQSeries for Windows NT and Windows 2000, V5.2.1 is a complete replacement for the previous release. This version requires re-installation, and cannot be updated from the original V5.2 product by applying a service fix. Existing configuration information is preserved.

Packaging


MQSeries AMI, MQSeries Internet pass-thru, and JMS support are supplied as Product Extensions, available as downloads from the Internet. This program when downloaded from a Web site, contains the applicable IBM license agreement, and License Information (LI), if appropriate and will be presented for acceptance at the time of installation of the program. The license and LI will be stored in a directory such as LICENSE.TXT for future reference.

Security, Auditability, and Control

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

Ordering Information

There are no changes to the MQSeries price structure in this announcement.

Upgrades and Transferability

Passport Advantage customers with Upgrade protection are entitled to upgrades as follows:

**MQSeries for Windows NT and Windows 2000 V5.2**

<table>
<thead>
<tr>
<th>Program package with 2 Capacity Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>French</td>
</tr>
<tr>
<td>German</td>
</tr>
<tr>
<td>Italian</td>
</tr>
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<td>Spanish</td>
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<tr>
<td>Japanese</td>
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<tr>
<td>Korean</td>
</tr>
<tr>
<td>Traditional Chinese</td>
</tr>
<tr>
<td>Simplified Chinese</td>
</tr>
</tbody>
</table>

Media pack — Multilingual 0784736 47P8484

Terms and Conditions

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

License Information Form Number: CT8A81E

Limited Warranty: Yes


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

Copy and Use on Home/Portable Computer: No

Volume Orders (IVO): No

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.

Usage Restriction: Yes

MQSeries products priced by capacity unit require capacity-unit authorizations (which are recorded on PoE documents and valid to support use of MQSeries programs according to published transfer groups). These must be obtained to use the program on each machine and machine upgrade.

Refer also to the MQSeries Web pages for further information on Terms and Conditions at:

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

IBM Operational Support Services — Support Line: Yes

AIX/UNIX® Upgrade Protection Applies: No

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

AS/400 Software Subscription Applies: No

Variable Charges Apply: No

Educational Allowance Available: Not applicable

Prices

Contact your IBM representative for pricing information for this announcement.

Order Now

Use Priority/Reference Code: SE001

Phone: 800-IBM-CALL
Fax: 800-2IBM-FAX
You can also contact your local IBM Business Partner or IBM representative. To identify them, call 800-IBM-4YOU (426-4968).

**Note:** Shipments will begin after the planned availability date.

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