Overview
MQSeries® for AS/400® joins the other MQSeries Version 5.1 products offering the most advanced messaging functions available, including:

- Even tighter business integration for your IT systems
- Benefits from new dynamic workload distribution
- Introduction of new MQSeries client
- Exploitation of MQSeries technology consistent across all the key distributed platforms and OS/390®
- You gain:
  - Scalability
  - Availability
  - Usability

Applications can operate as publishers or subscribers using a publish/subscribe broker on one of the supported platforms. You can obtain publish/subscribe broker facilities for MQSeries for AS/400 free from the Web as a SupportPac™ during first quarter 2000.

Candle Command Center Admin Pac for MQSeries, licensed under terms and conditions of Candle Corporation, is included and facilitates systems management startup.

Program Service is extended to January 31, 2001, for the following MQSeries products in line with Year 2000 readiness requirements:

- 5697-263 (04L1176) MQSeries for SINIX and DC/OSx, V2.2.1
- 5697-176 (04L1158) MQSeries for AT&T GIS (NCR) UNIX®, V2.2.1
- 5697-265 (04L1313) MQSeries for UnixWare, V1.4.2
- 5697-271 (04L1168) MQSeries for DIGITAL OpenVMS for VAX, V2.2.1
- 5697-270 (04L1164) MQSeries for DIGITAL OpenVMS for AXP, V2.2.1
- 5697-A17 (83H8731) MQSeries for Tandem NonStop Kernel, V2.2

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
- Route the information to its target

Your business process flows can be 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. It is the key technology for IBM business integration.

For a family overview, refer to Software Announcement 299-147, dated June 15, 1999.

Key Prerequisites
AS/400 Advanced Series processors running OS/400® V4R4.

Planned Availability Date
November 26, 1999

At a Glance
MQSeries for AS/400 joins other MQSeries V5.1 products — advanced messaging:

- Support for multiple queue managers
- Enabling clusters of queue managers to:
  - Dynamically share workload
  - Improve availability
  - Improve throughput
- Easier administration of clustered queue managers
- Maximum message size increased to 100 MB
- Message queue size increased to 2 GB
- New MQSeries client
- Web delivery of publish/subscribe broker facilities in first quarter 2000

Extended Program Service period for selected MQSeries offerings

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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**Description**

**New for MQSeries**

MQSeries for AS/400 exploits the proven ease-of-use, reliability, and scalability of the AS/400 System. Functional parity with the other MQSeries V5.1 products offers even tighter business integration for your IT systems. You are better positioned to incorporate enhancements in the MQSeries family of products.

**MQSeries for AS/400, V5.1**

- Retains close integration with OS/400
- Introduces a new MQSeries client
- Makes full use of built-in AS/400 features (for example, journaling and CL command interface)
- Enhances work management and security for greater ease-of-use

An interactive interface to MQ™ commands makes administration easier for users familiar with other MQSeries platforms. Remote administration is supported through the MQ Explorer, an element of MQSeries for Windows NT®, V5.1. Support for multiple queue managers offers increased flexibility in configuration. Queue manager clustering simplifies administration significantly.

Scalability of MQSeries applications on the AS/400 is improved by increases in message and message queue size. MQSeries Bindings for Java™ and support for multithreaded programs assist in integrating MQSeries into advanced e-business applications.

**New Features**

- Support for multiple queue managers
- Cluster (or groups) of queue managers
  - Dynamically share workload
  - Balance workload
  - Reroute workload if a system component fails or network path becomes unavailable
- Administration of clusters of queue managers is easier and quicker
- Queue managers in the same cluster can be on different platforms or physically remote from one another
- MQSeries jobs now run in their own subsystem and job attributes can be set by the user (for example, priority)
- An interactive interface to MQSC commands via the Qshell
- Multithreaded application support
- MQSeries Bindings for Java are combined into a single Java package with the MQSeries client for Java to provide uniform Java programming interface

**Migration and Upgrade**

Technical guidance on migrating from downlevel MQSeries for AS/400 to V5.1 offering will be provided by an Instruction Document SupportPac, obtainable prior to new product availability. Download free from the MQSeries SupportPac library at:


If you have a valid Software Subscription, you will be entitled to new level MQSeries product at no charge.

- For Passport Advantage, Software Subscription fulfillment of the upgrade will be via normal Passport Advantage channels.
- For AS/400 customers, Software Subscription availability and fulfillment of the upgrade will be announced at a later date.

**Original Equipment Manufacturer (OEM)**

MQSeries technology is available to qualified OEM for product integration via the IBM OEM organization. Prospective OEMs can discuss details of the arrangement by contacting the IBM OEM Worldwide Software Sales team at: ibmoemsw@austin.ibm.com

**Year 2000**

This product is Year 2000 ready. When used in accordance with its associated documentation, it is 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 product properly exchange accurate date data with it.

The service end date for this Year-2000-ready product is December 31, 2001.

**Product Positioning**

**MQSeries family**

The family of products based on IBM’s industry-leading MQSeries software helps companies:

- Address business integration issues quickly and economically
- Become more agile
- Stay flexible
- Maintain customer orientation
- Gain competitive position and stay there

The MQSeries family allows companies to maximize e-business opportunities by:

- Leveraging existing resources
- Improving speed-to-market
- Anticipating IT changes as their business changes

IBM Business Integration consists of three offerings under the MQSeries brand designed to complement each other:

1. **MQSeries** for secure and reliable communication of application messages over a wide range of platforms.
2. **MQSeries Integrator** for transformation and routing of application message contents as transmitted via MQSeries. It is optimized for high-volume, in-storage transformation of messages.
3. **MQSeries Workflow** for integration of application components via predefined workflow models.
Reference Information

Refer to Software Announcement 299-147, dated June 15, 1999.

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Java is a trademark of Sun Microsystems, Inc.
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Education Support

The appropriate curriculum includes enhancements described in this announcement.

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

For MQSeries® courses, refer to URL:

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

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

Publications

The following books contain information pertaining to MQSeries for AS/400®, V5.1. Order from country program libraries upon planned availability by contacting your IBM representative.

<table>
<thead>
<tr>
<th>Title</th>
<th>Order Number</th>
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<tbody>
<tr>
<td>MQSeries for AS/400, V5.1, Quick Beginnings</td>
<td>GC34-5557</td>
</tr>
<tr>
<td>MQSeries for AS/400, V5.1, System Administration</td>
<td>SC34-5558</td>
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<td>MQSeries for AS/400, V5.1, Application Programming Reference (RPG)</td>
<td>SC34-5559</td>
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<tr>
<td>MQSeries Planning Guide</td>
<td>GC33-1349</td>
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<td>MQSeries Application Programming Guide</td>
<td>SC33-0807</td>
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<td>MQSeries Application Programming Reference</td>
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<td>MQSeries Programmable System Management</td>
<td>SC33-1482</td>
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<td>MQSeries Command Reference</td>
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<td>MQSeries Queue Manager Clusters</td>
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<td>SC34-5456</td>
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<tr>
<td>MQSeries Administration Interface Programming Guide and Reference</td>
<td>SC34-5390</td>
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<tr>
<td>MQSeries Business Partner Directory</td>
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</table>

Displayable Softcopy Publications

Manuals are offered as HTML and PDF files with the program package CD-ROM.

MQSeries publications are also offered in displayable softcopy form on an IBM Online Books CD-ROM collection kit entitled, Transaction Processing and Data Collection (SK27-0730).

Obtaining the Kit

Note: The kit is updated on a regular basis, but not necessarily at the same time as availability of a new product or publication release.

Copies of the CD-ROM can be obtained for a fee through the Publication Notification System (PNS) or PUBORDER.

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 AS/400 Advanced Series processor systems with sufficient processor storage to meet the requirements of the operating system, the MQSeries product, and any user applications.

Connectivity: Network protocols supported are SNA LU6.2 and TCP/IP.


MQSeries Clients: Client code for AS/400, AIX®, DOS, HP-UX, OS/2®, Sun Solaris, Windows NT®, Windows™ 3.1, Windows 95 and 98, and Java are supplied with the product. Client software provides a remote interface to an MQSeries server. Client support does not result in distributed coordination of units of work. The Windows 3.1 client can operate under Windows 3.1 or Windows 95.

Options: If CICS® for OS/400 is installed, MQSeries can interoperate with CICS transactions and can link them with non-CICS environments.

Supported Programming Languages and Compilers for Application Development

• Integrated Language Environment® C/400®
• Integrated Language Environment COBOL/400®
• Integrated Language Environment RPG/400®
• Integrated Language Environment C++ for AS/400

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

Planning Information

MQSeries Pricing

The price model is structured over Processor Group tiers. In general, the tiers are linked to the number of processors per machine or node on which MQSeries programs run, as shown in the list GC34-5265. The tiers relate to a required number of capacity units. Additional capacity units are required as you move to larger systems, or add new systems.

The charge for MQSeries client access, where applicable, is included within the capacity unit charge.

MQSeries for AS/400 Processor Group List for Capacity Units

<table>
<thead>
<tr>
<th>Machine</th>
<th>Use Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor Group P05</td>
<td>2 x Capacity Units</td>
</tr>
<tr>
<td>Processor Group P10</td>
<td>3 x Capacity Units</td>
</tr>
<tr>
<td>Processor Group P20</td>
<td>4 x Capacity Units</td>
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<td>Processor Group P30</td>
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<td>Processor Group P40</td>
<td>8 x Capacity Units</td>
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<tr>
<td>Processor Group P50</td>
<td>10 x Capacity Units</td>
</tr>
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</table>

This list is available as an IBM document (GC34-5265), it is included in the Product Brief and is shipped with program packages. A calculation tool can aid in assessing the required authorization for a particular customer environment. Access the tool via:


Price Structure: The required number of Capacity Unit Resource Use Authorizations are defined by processor group.

Minimum entitlement to use MQSeries on an AS/400 P05 processor machine is included in the licensed program packaging. Additional capacity units must be acquired separately for MQSeries use on larger or multiple machines. For MQSeries for AS/400, the required capacity unit ranges from two for each entry machine through to 10 for P50 machine. Refer to the Processor Group List above.

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

The capacity units are not transferable between products in different MQSeries Transfer Groups. In general, a charge will be associated with migrating existing Use-Authorization (capacity units) to an MQSeries product at a functionally enhanced version or release level. Options within Passport Advantage allow such migrations for no-charge.

The following groups show the current MQSeries Transfer Groups and the platforms, within group, eligible for generic capacity unit transferability. The version.release levels shown represent MQSeries levels.

MQSeries Transfer

- Group A
  - DIGITAL OVMS VAX, V2.2
  - DIGITAL OVMS AXP, V2.2
  - Tandem NSK, V2.2
  - SINIX and DC/OSx, V2.2
  - AT&T NCR, V2.2
  - Tandem NSK, V2.2
  - DIGITAL (Tru64) UNIX®

- Group B
  - AIX, V5.0
  - HP-UX, V5.0
  - Windows NT, V5.0
  - Sun Solaris, V5.0
  - OS/2 Warp, V5.0
  - AS/400, V4.2.1
  - Sun Solaris on Intel, V5.0

- Group C
  - AIX, V5.1
  - HP-UX, V5.1
  - Windows NT, V5.1
  - Sun Solaris, V5.1
  - OS/2 Warp, V5.1
  - AS/400, V5.1

Capacity units are transferable within MQSeries Transfer Group A products, within MQSeries Transfer Group B products, and within MQSeries Transfer Group C products, but not between different groups.

These Transfer Groups will also appear in the document MQSeries Distributed Platform Processor Group List (GC34-5265) as reference.

Customer Responsibilities: The customer must provide the minimum hardware and software environments in which the licensed program can operate.

The customer must identify the machines on which they will install MQSeries. The customer or program provider will identify the capacity unit 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.

Direct Customer Support: Direct customer support is provided by SupportLine. This fee service can enhance your productivity by providing voice and electronic access into the IBM support organization. SupportLine helps answer questions pertaining to usage and suspected software defects for eligible products.

Installation and technical support is provided by IBM Global Services. For more information call 800-IBM-4YOU (426-4968).
SmoothStart® Services: SmoothStart Service for MQSeries provides customers with planning and installation services for MQSeries Solutions to ensure that their MQSeries environment is quickly up and running. An IBM specialist spends a week, or longer, depending on customer requirements, working with the customer's technical and programming staff to increase productivity and accelerate implementation of MQSeries licensed software in the customer business environment.

Planning Services for MQSeries Solutions: IBM Planning Services for MQSeries Solutions is a customizable service designed to help you with a plan to implement an MQSeries Solution within your organization. With this service, you can customize how the plan is created; we can create the plan for you by collecting the necessary business requirements and infrastructure information, or we can work with your staff to create the MQSeries plan. In addition, IBM Planning Services for MQSeries Solutions can assist in designing your system network architecture, developing deployment and application migration plans, and recovery planning of MQSeries objects and data.

Design Services for MQSeries Applications: IBM Design Services for MQSeries Applications helps you produce high- and low-level designs for your MQSeries applications including assistance in modifying or writing applications to take full advantage of your MQSeries environment. This offering is customizable and may include assistance in evaluating your test plans and making sure your applications perform effectively.

For additional services information, contact an IBM Global Services representative or visit: http://www.ibm.com/services/

For additional information, refer to Services Announcement 699-026, dated June 15, 1999.

Eligible customers can obtain installation and usage assistance from the Finance Industry Support Center through a telephone response line.

To obtain information on customer eligibility and registration procedures, refer to HONE SUPPORTINFO.

Packaging

Program Package

MQSeries for AS/400, V5.1 is shipped on two CD-ROMs. Language versions are packaged on the same CD-ROMs as the U.S. English product. All media contains server program code, client program code for Version 5.1 client platforms, DOS, Windows 3.1, Windows 95/Windows 98 workstations and Java and machine-readable information for all supported national languages.

The program package also contains:

- International Program License Agreement
- License Information
- MQSeries Workstation Processor Groups List (GC34-5265)
- Proof of Entitlement for two Capacity-Unit Authorization
- Registration Card
- One Hardcopy Book
  - MQSeries for AS/400 Quick Beginnings (GC34-5557)
  - MQSeries Business Partner Directory (GC34-5440)
  - MQSeries Awards (GC34-5572)

Also available as applicable:

- One MQSeries Capacity-Unit Pack POE

Candle Command Center Admin Package (GC34-5534)

- CD-ROM
- Letter
- License Agreement
- Installation Instructions
- Technical Marketing Sheet
- Service Sheet
- Fax Reply
- Brochures

The Candle package is shrinkwrapped and bundled with the MQSeries program package and licensed under the Terms and Conditions provided by Candle Corporation.

The separate documentation package will include MQSeries for AS/400 Quick Beginnings.

Security, Auditability, and Control

The announced program uses the security and auditability features of the 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.

Ordering Information

MQSeries products use a flexible pricing structure. The new pricing structure simplifies the development and management of complex applications, particularly for large organizations.

There is only one charge unit for these products: the capacity unit.

For this offering the price model is structured over tiers that are defined by processor groups. The higher the group, the higher the tier position and the more use authorization needed to use the program. This applies to each machine and machine upgrade. A two-pack Capacity Unit Use Authorization is included with the program package (minimum entitlement for use with a POS machine). Acquire additional capacity units separately.

Program Packages

<table>
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<th>Order Type</th>
<th>Feature Number</th>
<th>Part Number</th>
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Generic MQSeries Capacity Units

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<td>8518</td>
<td>94H5654</td>
</tr>
</tbody>
</table>

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

Candle Command Center Admin Pac License Agreement

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Upgrades for the Candle Product

You can upgrade to the Candle Center Management Pac for MQSeries — fully functioning versions of the two Candle Command Center products with complete support of all three products, available from Candle.

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Candle product-related enquiries should be directed to Candle not IBM.

Limited Warranty Applies: Yes

Program Services: For MQSeries for AS/400, V5.1, service is available until December 31, 2001.

For the following existing MQSeries products: Service end dates have been extended to January 31, 2001:
Money-back Guarantee: Two-month, money-back guarantee

Copy and Use on Home/Portable Computer: No

Usage Restriction: Yes

Usage: Capacity Unit

Description: Resource Use Authorizations are required according to processor level of the machine on which the product will run. Refer to the MQSeries Workstation Processor Group List (GC34-5265). For the purpose of the license information, a resource identification is a requisite quantity of capacity units. Use may not exceed the total amount of resource authorized.

Support Line: AS/400 (when available)

Volume Orders: Yes, contact your IBM representative

Passport Advantage Applies: Yes

Passport Advantage Subscription Applies: Yes

Upgrades: No

AIX/UNIX Upgrade Protection Applies: No

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

AS/400 Software Subscription Applies: Yes. Details to be announced at a future date.

Variable Charges Apply: Yes

Educational Allowance Available: Yes, to qualified educational institution customers.

Charges

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<th>Program Name</th>
<th>Part Number</th>
<th>OTC*</th>
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* One-time charge

Passport Advantage

Note: 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.

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