The Object Management Group™ is an international organization of information system vendors, software developers, and end-users. Through its members, the OMG™ produces and maintains software specifications for interoperable enterprise and Internet applications. With well-established standards covering software development from design, through development, to deployment and maintenance, the OMG supports a full-lifecycle approach to enterprise integration. Based on the established Object Management Architecture (OMA) and the emerging Model Driven Architecture™ (MDA™), OMG's standards cover application design and implementation. Modeling standards include the UML™ (Unified Modeling Language™), the MOF™ (Meta-Object Facility), XMI™ (XML Metadata Interchange), and CWM™ (Common Warehouse Metamodel). CORBA®, the Common Object Request Broker Architecture, is OMG's standard open platform. OMG also issues the CORBA services™, CORBA facilities™, and a rapidly growing set of industry-specific standards in vertical markets including healthcare, telecommunications, biotechnology, transportation and a dozen other areas.

OMG specifications combine to form a foundation and framework for multi-platform enterprise interoperability that covers the full software lifecycle, allowing organizations to leverage their IT assets and maximize their return on software investment. Implementations of OMG specifications are produced by vendors as products, or by end users and others who need a standard solution to a particular computing or business problem to future-proof their software assets.

The focus of the OMG is not just to create commercial consensus through standards, but also to ensure that those standards get used in the marketplace. As it has for over a decade already, OMG continues to nurture the marketplace of interoperable software, one in which users can purchase standards-compliant software “off the shelf.”

OMG standards reduce the complexity, lower the costs, and ease the introduction of distributed software applications. They cover the full scope of software generation from analysis and design, through infrastructure, to industry-specific facilities, over the complete software lifecycle. OMG's focus is on standards that connect what you have built, with what you are building, with what you will build in the future.

Modeling Specifications: As the complexity of business systems increase in scope and scale, it becomes essential to analyze your business problem and design your software solution before you begin to program. OMG's Unified Modeling Language (UML) is the computer industry standard for object-oriented analysis and design. Used by every methodology,
UML expresses your design in a standard format that is read and interpreted identically by architects and programmers everywhere, minimizing errors and speeding your project towards successful completion.

**Additional standards complete OMG's coverage of the modeling space:** The Meta-Object Facility (MOF) defines a common basis for all of OMG's modeling and application development standards, and XML Metadata Interchange (XMI) allows UML models to be moved from one tool to another, or to a repository, or to a development environment, as a DTD-based XML dataset. Finally, the Common Warehouse Metamodel (CWM) brings the benefits of OMG standardization to data modeling through its standard models for table-based, file-based, and object-based datastores, paving the way for enterprise-wide data modeling and data mining.

**Model Driven Architecture:** OMG's modeling standards are the foundation for the OMG Model Driven Architecture™ (OMG MDA™). Defined fundamentally as platform-independent UML models, MDA services and facilities may be implemented on, or accessed from, any middleware platform. This enables them to serve enterprises and industries regardless of their middleware platform — even in industries with no standard middleware, where multiple platforms are the norm.

The base UML model is extremely stable, enhancing ROI across the full software lifecycle. A recent extension to OMG's scope, the MDA responds to the business needs of the enterprise trying to cope with today's succession of middleware. The OMG MDA is truly "The Architecture of Choice for a Changing World™."

**CORBA and the OMA:** OMG's Common Object Request Broker Architecture (CORBA) is the enterprise standard for application integration. Providing interoperability across boundaries of hardware, operating systems, programming language and network protocol, CORBA, the "Middleware that's Everywhere™," ties together the infrastructure of many of the world's largest server installations, and coordinates the operations of numerous multinational corporations.

CORBA applications separate software interfaces from implementations by defining them in OMG Interface Definition Language (OMG/ISO IDL); the standard protocol IIOP® ensures interoperability. Recent extensions to CORBA bring it to the forefront of enterprise and Internet computing: native representation for XML documents; a component-based server environment compatible and interoperable with the popular Enterprise JavaBeans; and messaging-mode invocations with the loose coupling preferred for B2B transactions. OMG-standard adaptations extend CORBA, still fully interoperable, to distributed Real-Time and small-footprint embedded systems.

**Industry-Specific Standards:** The majority of the standards-setting activity at OMG meetings focuses on specific industries. OMG-standard facilities in Telecommunications, Healthcare, Manufacturing, Transportation, and other domains enhance interoperability and increase software ROI through their robust designs. Telecommunications standards, for example, cover network management and service ordering and provisioning; manufacturing standards include a Product Data Management facility. Based on OMG IDL™ interfaces today, these domain facilities are being used in OMG’s industry-standard CORBA architecture but will, through the MDA, extend to additional popular platforms in the near future.
Membership

Founded in 1989, the Object Management Group (OMG) is an open membership, not-for-profit consortium dedicated to producing and maintaining specifications for interoperable enterprise applications. Our membership roster includes many of the most successful and innovative companies in the computer industry, as well as the leaders in use of technology to gain a competitive edge in their business. All have made the commitment to participate actively in shaping the future of enterprise, Internet, real-time, and embedded systems.

Committee (DTC), and in all Task Forces (TFs) and Special Interest Groups (SIGs). They may submit technology in response to any OMG Request for Proposals (RFP, the requirements document that initiates an OMG technology adoption process), and are eligible for a seat on OMG’s Board of Directors (BoD).

Platform Members adopt OMG’s infrastructure standards including all modeling specifications, CORBA, and the CORBAservices. They may vote in the PTC, and submit technology in response to its RFPs. They may also vote in all TFs and SIGs, and are eligible for a seat on the BoD.

Domain Members adopt standards in particular vertical industries. They may vote in the DTC, and submit technology in response to its RFPs. They may also vote in all TFs and SIGs, and are eligible for a seat on the BoD.

Influencing Members may vote in all TFs. Because this is where new standardization efforts are initiated and new specifications receive their technical evaluation and approval, influencing members are a force in the OMG process. They may also vote in all SIGs.

Government Members represent government agencies, at any level, from anywhere in the world. They enjoy the same privileges as Influencing Members.

University Members must represent educational institutions. They enjoy the same privileges as Influencing Members.

Membership Levels

Contributing Members have full voting and submission privileges everywhere in OMG including both the platform side, which standardizes all modeling and the CORBA infrastructure, and the Domain side, which is responsible for industry-specific services and facilities. They may vote in the Platform Technology Committee (PTC) and Domain Technology

Committee (DTC), and in all Task Forces (TFs) and Special Interest Groups (SIGs). They may submit technology in response to any OMG Request for Proposals (RFP, the requirements document that initiates an OMG technology adoption process), and are eligible for a seat on OMG’s Board of Directors (BoD).

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University Members must represent educational institutions. They enjoy the same privileges as Influencing Members.
Auditing Members may attend all meetings, but attendance is limited to one person per company. Auditing members have no voting privileges.

Analyst Members are industry experts who need to network with OMG members and stay in touch with all aspects of distributed computing technology. Limited meeting attendance is allowed. Analyst members have no voting privileges.

The OMG Technology Adoption Process

OMG member companies work together to create new standards via the Technology Adoption Process. The PTC and DTC each charter TFs, which execute the technical parts of the process with equal participation from all categories of OMG member companies except Auditing and Analyst. This is where RFPs (the requirements document for a new specification) are written, and submissions (candidate specifications) are evaluated. TFs vote to recommend their results to their parent TC, where they are ratified by a vote of Contributing plus either Domain (DTC) or Platform (PTC) members. OMG’s Architecture Board (AB) oversees the entire process, ensuring that all specifications are consistent with the organization’s architecture and with each other. Following technology committee recommendation of a technology adoption and approval by the AB, OMG’s BoD ascertain, via a questionnaire to submitting companies, that a commercial implementation will reach the marketplace within a year of adoption. If this requirement is met, a vote of the BoD officially declares a document to be an OMG specification.

OMG Task Forces Chartered by the PTC
- Modeling, Analysis and Design
- CORBA Infrastructure and Object Services

OMG Task Forces Chartered by the DTC
- Telecommunications
- Healthcare
- Manufacturing
- Transportation
- Biotechnology
- Finance/Insurance
- Electronic Commerce
- Utilities
- Space and Ground Systems
- Business Objects
- Military and Civilian Logistics (C4I)

OMG Special Interest Groups
- Real-time Computing
- Security
- Internet
- Distributed Simulation
- Analytical Data Management
- Software Agents
- Testing and Validation
- Digital Asset Management

The OMG’s status as a source of high-quality, industry-wide specifications has been acknowledged by the International Organization for Standardization (ISO), which has accorded the OMG Publicly Available Specification (PAS) Submitter status. This allows OMG specifications to be fast-tracked, unchanged, into ISO standards. OMG IDL, CORBA Trader, the protocols GIOP and IIOP, and the MOF are already ISO standards; ISO adoption of UML is nearly complete.
Benefits of OMG Membership

Participation in the technology adoption process is not the only benefit your company will receive by joining OMG. Our staff works energetically to create additional programs that maximize the value of membership. We’ve posted a complete list at http://www.omg.org/membership/membershipbenefits.htm. As an OMG member, you are encouraged to:

Influence the Technology Adoption Process by attending Technical Meetings (held about every 10 weeks) at various locations worldwide. The OMG generally holds three meetings per year in the North America, one or two in Europe, and one every other year on the Pacific Rim. By participating in OMG meetings, you and your company will help drive the worldwide technology adoption process, gain a competitive advantage, and acquire a significant head start in developing an implementation of adopted specifications. Current members often comment that attendance at a single OMG meeting carries more value than a full year’s worth of reading magazines and reports.

Network with industry experts including vendors, users, software developers, and marketers who are driving enterprise and Internet computing. This provides unparalleled access to the best minds in distributed computing and provides opportunities to develop critical industry relationships and collaborations.

Gain a first look and free access to all OMG produced specifications, formal documents, the technical document archive, books, research reports, tutorials, and whitepapers. You and your company become part of the entire technology adoption process, from requirements generation to the acceptance of specifications.

Participate in technical discussion on OMG’s extensive email lists. Restricted to members only, these lists are the main communications network between meetings. This is where you input your company’s requirements to an RFP drafting team, or read the evaluation of a set of submissions. Your company’s influence on the OMG process starts here!

Receive discounts on market research and reports. The OMG offers member discounts on research and reports from world-renowned Industry Analysts and Market Research firms at steeply discounted prices. These discounts are often exclusive to OMG members.

Join the OMG Speakers Bureau designed to match qualified OMG member speakers with highly
visible speaking opportunities. There are over 120 OMG members enrolled in the program and participants have been placed at nearly 100 speaking assignments worldwide. Venues have included User Group meetings, UNIX Expo, book signings, Corporate Technology Days, University Lectures, Defense Conferences, Object Oriented Technology Symposia, Coalition Days, and industry-specific trade shows.

Access and submit to the OMG Presentation Library, a series of electronically accessible presentations for member use to educate and promote CORBA, distributed object computing, and the OMG within your organization. Scripted presentations are provided by OMG staff and also from member organizations.

List your CORBA training offerings on OMG’s UML and CORBA Training Web site. Over 85 visitors per day (30,000+ per year) have taken advantage of the conveniently organized list of OMG members’ offering CORBA-based training, including company locations, contact names, class listings, descriptions, and with direct links to their Web site for class dates and pricing.

The Future

Today, OMG defines the state of the art in enterprise application design and development: UML is the standard for analysis and design, supported by the MOF and XMI, while CWM is the industry standard for data modeling and data mining. On the deployment side, CORBA is the only platform-independent and language-independent standard for integration of servers and enterprise applications, while distributed Real-Time and embedded applications rely on OMG’s fully interoperable specializations of the core standard.

For years, many industries have been reaping the benefits of CORBA and CORBA-based standard facilities. Case studies documented on www.corba.org show how CORBA provides interoperability to deployed, mission-critical applications in telecommunications, manufacturing, transportation, and other industries. More CORBA-based specifications are adopted in these and other domains including finance, retail, electronic commerce, utilities, and biotechnology.

Looking to the future, OMG members are defining the Model Driven Architecture to stabilize software at the design level and thereby maximize software ROI in this era of shifting infrastructure. Although the general structure of the MDA has been drawn and many of its components are already in place, there is still a lot of work to do in every area: modeling and design tool support, selection of supported platforms such as EJB, XML/SOAP, COM/DCOM/MTS, .NET; standardization of mappings to these supported platforms; and finally the payoff: standardization of services and facilities in the MDA by companies in the industries that need them.

In the years since its founding in 1989, OMG’s membership has established CORBA, UML, MOF and XMI, the CWM, and their associated standards as the way industry designs, implements, and executes distributed applications. Continued success depends on the commitment of organizations like yours—organizations that want to be involved in building the solutions to the challenges of universal application integration. OMG encourages you to join in helping us build the future.

For more information on OMG's broad industry support, see [http://www.omg.org](http://www.omg.org)
For information on joining the OMG or additional information, please contact OMG headquarters by phone at +1-781-444-0404, by fax at +1-781-444-0320, or by email at info@omg.org. The OMG provides current information and services for Distributed Object Computing through The Information Brokerage® on the World Wide Web at www.omg.org and at www.corba.org. Information about OMG Japan can be found at www.omgj.org.

Object Management Group
First Needham Place
250 First Avenue, Suite 201
Needham, MA 02494 USA
Phone: +1-781-444-0404
Fax: +1-781-444-0320
WWW: http://www.omg.org

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