

[facility name]
RFP Response
Evaluation Guidelines
{ Generic Template }

[name] Task Force

Questions and comments:*[name, company, e-mail address]*

[name] Task Force

16 December, 1996

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1. Introduction

This document is intended to help guide the evaluation process for this RFP. The document is based on an evaluation process template which has been successfully applied to several RFPs.

This document is a “living” document. It will incorporate recommendations made by submitters and [name of task force] members. Recommendations may be made by e-mail or via discussion [name of task force] meetings.

[History of document drafts.]

1.1. Goals

The primary goals of the evaluation process are to:

- Provide a fair and open process.
- Ensure a common understanding of the RFP requirements.
- Support a critical review of the submissions in relation to the requirements.
- Encourage active participation by the submitters in the evaluation process.
- Provide ample opportunity for comment, evaluation and consensus building across all OMG groups.
- Give feedback to the submitters on issues to address in their revised submissions.
- Enable voters to make informed selection decisions.

1.2. Requirements

The RFP requires submissions to address the requirements in the following table.

RFP Requirements Categories: *Core/Opt/Disc*

- **Core** (Essential): *Must ...*, *Will/Shall ...*, and *Should ...*
- **Optional** (Scope): *May ...*
- **Discovered** or **Desired**: *Requirements discovered in the discussion of core and optional requirements and responses.*

RFP Requirements

Note: Interpretations are indicated in italics.

RFP Ref.	Core/ Opt/ Disc	Requirement Description with <i>Interpretations</i>	Scenario/ Component Reference	Submission Reference(s)
		•		

1.2.1. General and Non-Technical Requirements

In addition to the RFP-specific technology requirements stated in the above table, RFP submissions should address the following requirements:

- General Technical Requirements for all OMG Submissions. These requirements emphasize the need to express the specification in terms of OMG IDL. Additionally, submissions should demonstrate adherence to a set of architectural principles, including:

- Minimize duplication of functionality. Each specification should build on previous specifications where appropriate.
- Portability. The specification should accommodate portability of implementations across a wide range of platforms and should not require use of a particular programming language.
- Format Requirement of RFP Response:
 - OMG document ab/96-06-01.xxx , Section 4.8 defines the format for RFP submissions.
- The RFP requires identification of relevant industry standards. In particular, submissions should identify how their specifications relate to the architecture for system distribution defined in ISO/IEC 10746, Reference Model of Open Distributed Processing (RM-ODP).
- End User Special Interest Group Requirements.

1.2.2. [name of task force], OMG, User Requirement Issues

[Enumerate outstanding issues, resolution of issues encountered throughout the evaluation process].

1.3. Final Submission Criteria

Evaluation criteria for the final submission will address issues of alignment, boundary resolution, dependencies, and inter-relationships between this and other closely related technology submissions: [enumerate related RFPs] These criteria will be worked in conjunction with the task forces responsible for the related technology:[enumerate task forces].

1.4. Action Items

[Enumerate action items related to the evaluation process].

1.5. Submitters

The following is contact information for organizations which have submitted a Letter Of Intent:

Company	Name	E-mail

2. Process

Submissions to the RFP are evaluated by the [name of task force]. Selected specifications are recommended to the [Platform or Domain]TC after being reviewed by the Architecture Board for consistency with the OMA. The full TC then votes to recommend adoption to the OMG Board.

The role of [name of task force] is to technically evaluate submissions and select one or more specifications that satisfy the requirements of the RFP.

The process consists of the steps described in the following paragraphs.

2.1. Voter Registration

Interested [name of task force] members may register to participate in specification selection votes for the RFP. Registration ends on [date]. Companies who have submitted an LOI are automatically registered to vote.

2.2. Prepare Evaluation Guidelines

The [name of task force] will approve this document during the [location and date] meeting. This includes a statement that the requirements in the Evaluation Guidelines are to be used for the Initial Presentations and in the evaluation process.

2.3. Initial Submissions

Initial submissions are due [date]. Submissions to the RFP will be made available electronically to the entire OMG membership on or before [date], which can not be less than three (3) weeks prior to the date of the initial presentations to the [name of task force].

Submissions must be formatted according to the RFP template defined by the Architecture Board. Submitters are encouraged to include a glossary and a standards conformance section.

According to section 4.2.1.1 of the "Policies and Procedures of the OMG Technical Process, draft 0.6": RFP responses must provide a proof of concept statement to explain the ways in which their specification has been demonstrated to be technically viable. It is important for a TC to understand the technical viability of an RFP response during the evaluation process. Technical viability has a lot to do with the state of development of the technology being submitted. This is not the same as commercial availability which is an OMG BOD consideration. Proof of concept statements can contain any information deemed relevant by the submitter.

According to section 3.4 of the RFP template: Initial submissions are expected to be full and complete proposals and working implementations of the proposed specifications are expected to exist at the time of submission.

2.4. Initial Presentations

Presentations on the responses are made by the submitters at a meeting of the [task force name] in [place and date of meeting]. These briefing presentations should be structured to address the requirements identified in Section 1.2.

The submitter is to state if the submission addresses each requirement. If the submission does address a requirement, provide a reference (paragraph(s) in the document) in the presentation. If the submission does not address the requirement, provide a reason.

For the entire submission, address any dependencies (on other OMA services or external standards) and issues to be resolved (either by the submitters or other groups).

The effectiveness of initial presentations will be increased if they explain or demonstrate how the submission supports the evaluation model(s) included in this document. Submitters are encouraged to use the evaluation model(s) to demonstrate how their submissions meet the RFP requirements.

2.5. Evaluation Phase

[task force name] will evaluate submissions from the [place and date] meeting through [place and date]. During this time submitting companies have the opportunity to revise and/or merge their initial submissions, if they so choose.

The following points should be noted:

- Independent submissions are solicited for each separate item in the RFP. A company may respond to any or all items. Each item will however be evaluated independently by the [task force name]. Thus submissions that do not present clearly separable proposals for multiple items may be at a disadvantage.
- The RFP provides the format to be used for the RFP response as well as an enumeration of requirements to be addressed. RFP response evaluation will be more effective if these guidelines are followed.
- [task force name] will identify a reference model to be used as the basis for demonstration/explanation of each submission. RFP response evaluation will be more effective if initial presentations by submitters explain/demonstrate their submission with respect to the identified reference model. Submitters are encouraged to show how their response can be used to satisfy the RFP requirements with respect to the reference model.

2.6. Revised Submissions

Final revised submissions are due [date]. There is no obligation on a submitter to alter its submission; under these circumstances the original submission will be re-examined by the [task force name]. However, if a submitter explicitly withdraws his submission (in writing), then it will not be reconsidered, and furthermore the submitter may not subsequently make another response to the RFP. Submitters will present their proposals at the [task force name] meeting [place and date]. It will also be incumbent upon the finalists to demonstrate to the satisfaction of the [task force name] the technical viability of their submission.

2.7. Selection Vote

When the registered voters of the [task force name] believe that they sufficiently understand the relative merits of the revised submissions, a specification selection vote is taken. The earliest possible date is the [task force name] meeting [place and date].

2.8. Architecture Board Endorsement

The [task force name] must obtain an endorsement by the Architecture Board that the selected submission is compliant with the Object Management Architecture.

Architecture Board Evaluation criteria include:

- Performance. Potential implementation trade-offs for performance will be considered.
- Portability. The ease of implementation on a variety of ORB systems and software platforms will be considered.
- Compliance: Inspectability and Testability. The adequacy of proposed specifications for the purposes of compliance inspection and testing will be considered. Specifications should provide sufficient constraints on interfaces and implementation characteristics to ensure that compliance can be unambiguously assessed through both manual inspection and automated testing.
- Alignment of the submissions to related technology specifications.

The CORBA Users were chartered as a Special Interest Group (SIG) under the Architecture Board to enable review of all Domain and Platform technology submissions and to ensure OMA support for legacy systems migration.

End user requirements will be evaluated by this group.

2.9. PTC Specification Adoption

No earlier than the date of the initial presentations, the Task Force Chair of the *[task force name]* reports on the recommendation of the *[task force name]* to the PTC for adoption of a specification, potentially with modifications. The TFC should provide enough commentary of the *[task force name]* deliberations to allow PTC voters to make an informed decision based on this recommendation. The PTC begins a specification adoption vote on a recommendation to the BOD for adoption of a technology response, taking into account the *[task force name]* recommendation. The PTC may only recommend adoption of a response whose compliance with the Object Management Architecture has been endorsed by the Architecture Board.

2.10. Summary of Schedule

Event or Activity:	Estimated Date
Evaluation Process Organized	
Initial submissions due	
Voter registration closes	
Initial submission presentations	
Preliminary evaluation by <i>[task force name]</i>	
Revised submissions due	
Revised submission presentations	
Final evaluation and selection by <i>[task force name]</i>	
Recommendation to AB and PTC	
Approval by Architecture Board	
Review by PTC ("Three week rule")	
PTC votes to recommend specifications	
BOD votes to adopt specifications	

3. RM-ODP Considerations

The RFP requires that "submissions ... identify how their provisions relate to the architecture for system distribution defined in ISO/IEC 10746 | ITU-T Recs. X.901-904, Reference Model of Open Distributed Processing (RM-ODP)".

In order to comply with this requirement a submission should indicate how the specification of a system or application, expressed in terms of viewpoint specifications as defined in the RM-ODP, can be related to an implementation of that specification. It should also indicate the relation of functions provided by the technology specification to the ODP functions and transparencies defined in clauses 11 and 12 of the RM-ODP Part 3.

In compliance with the RFP requirements, and as an aid in reviewing RM-ODP compliance, submissions should include a glossary. Terms and concepts aligning with existing RM-ODP specifications should be indicated using appropriate annotation (e.g., "[RM-ODP]"). Clarification, definition, or extension of the terms and concepts introduced by National body contributions would be appreciated.

RM-ODP Background

The RM-ODP (Reference Model of Open Distributed Processing) has been developed by ISO/IEC in collaboration with ITU-T to provide a coordinating framework for standardization in support of the distribution of systems and processing. It creates an object-based architecture within which support of distribution, interworking and portability can be integrated. The ODP architecture and the OMA are compatible, although the ODP architecture currently addresses a wider range of distribution issues. RM-ODP consists of:

ISO/IEC 10746-1| ITU-T Recs. X.901: Overview - gives an overview and explanation of the key ODP concepts and an outline of the architecture. Not normative.

ISO/IEC 10746-2| ITU-T Recs. X.902: Foundations - provides the definition of object-based modeling concepts and constructs, and an analytical framework for describing the architecture. Normative.

ISO/IEC 10746-3| ITU-T Recs. X.903: Architecture - describes the architectural framework and identifies requirements for standardization. Normative.

ISO/IEC 10746-4| ITU-T Recs. X.904: Architectural Semantics - providing a formalization of ODP concepts. Under development

Parts 1, 2 and 3 are relevant to this RFP.

Part 1 is awaiting publication by ISO/IEC. The text is available as OMG documentParts 2 and 3 have been published by ISO/IEC and are available from national standards bodies or from:

ISO
Case postale 56
CH-211 Genève
Switzerland
Tel. +41 22 749 01 11

Parts 2 and 3 are also available on-line at:
<http://www.iso.ch:8000/RM-ODP>

The following is a brief description of RM-ODP architecture and how it relates to the OMA and this RFP.

The RM-ODP architecture addresses the fact that distributed systems can be very large and complex. The many different considerations which influence their design can result in a substantial body of specification that needs to be given structure if it is to be managed successfully. A good structure should allow different parts of the design to be worked on separately if they are independent, but should identify clearly those places where different aspects of the design constrain one another.

In order to achieve this, the RM-ODP defines a framework for the specification of distributed systems that is structured in terms of 5 viewpoints. Each viewpoint focuses on an abstraction of the system related to a particular set of concerns. Thus, a viewpoint is a subdivision of the specification of a complete system, established to bring together those pieces of specification that are relevant to some particular area of concern during the design of the system. The viewpoints are not completely independent: key items in each are identified as related to items in the other viewpoints. However, the viewpoints are sufficiently independent to simplify reasoning about the complete specification.

Each of the viewpoints in the set can be related to all the others. They do not form a fixed sequence like a set of protocol layers, nor are they created in a fixed order according to some design methodology.

The viewpoints are:

- **Technology viewpoint** Concerned with specifying choice and configuration of technology to support the distributed system of concern. This is implementation detail which is explicitly outside the scope of OMG specifications. Examples of technology choices derived from OMG specifications include vendor-specific ORB products running on specific platforms. Tools targeting the viewpoint include Implementation Repositories.
- **Engineering viewpoint** Concerned with specifying the infrastructure required to support system distribution (i.e., the mechanisms and functions required to support distributed interactions between objects in the system). In a CORBA based system this viewpoint will cover the CORBA specification, including Structure of an Object Request Broker, Invocation Interfaces, ORB Interfaces, Basic Object Adapter, Interoperability Architecture, etc. However, in a system specification where the use of specific object services is expected to be transparent to application objects, specification of the mechanisms for this use will also be a part of the engineering description.
- **Computational viewpoint** Concerned with specifying the functional decomposition of the processing into a set of objects that interact at interfaces - enabling system distribution and object portability. CORBA IDL (ISO IDL) specifications are the standardized way to define operational interfaces of computational objects..
- **Information viewpoint** Concerned with specifying the kinds of information handled by the system, and behavior, constraints, environment contracts, object configurations and semantics related to the use and interpretation of that information. The specification is structured in terms of invariant schema, static schema, dynamic schema for the information.
- **Enterprise viewpoint** Concerned with specifying the purpose, scope and policies governing the activities of the system. From RM-ODP: "In an enterprise specification, an ODP system and the environment in which it operates are represented as a community. The objectives and scope of the ODP system are defined in terms of the roles ... and policy statements about those roles. A role is defined in terms of the permissions, obligations, prohibitions and behaviour of the enterprise object fulfilling the role. An enterprise object can fulfill one or more roles in a community, and the roles which it can fulfill are determined by the contract on which the community is based. While it is part of one community the enterprise object can continue to fulfill roles in other communities, subject to the provisions in the contracts of the communities involved. The enterprise object can fulfill different roles in different communities. Interactions between enterprise objects fulfilling appropriate roles within different communities can be considered as interactions between those communities."

The conformance requirements for a system implementation are given by the enterprise, information, computational and engineering specifications. The technology description identifies the points in the system implementation at which conformance can be assessed.

As an example, if the [name of facility] is itself considered as a system then:

- The engineering specification would be a reference to the CORBA specification.
- The computational specification would be the specification of the [name of facility] using OMG IDL but cover additional considerations, in particular behavioral descriptions in terms of allowed sequences of actions and environment contracts specifying Quality of Service constraints. It will also define the use of CORBA services
- The information specification would define the semantics of the computational interactions that take place in support of business applications. In the specification of conformance the information viewpoint concepts expressed in an information language are related to the computational specification in OMG IDL;
- The enterprise specification would define the purpose, scope and policies governing the operation of the [name of facility] in support of applications. In the specification of conformance the enterprise viewpoint concepts expressed in an enterprise language are related to the computational specification in OMG IDL .

The ANSI X3H7 Object Information Management Technical Committee was established in 1992 and operates under the procedures of the American National Standards Institute (ANSI). X3H7 is currently serving as the US development group for a proposed ISO new work item to develop an Enterprise Language and Application Architecture Standard to extend and refine the provisions of the Reference Model for Open Distributed Processing (RM-ODP) in this area. This work is being done by ISO/IEC JTC1/SC 21 WG 7 in cooperation with national and international ODP groups as well as the Object Management Group's Business Object Domain Task Force. Eight nations have expressed interest in working on the work item, including Australia, Finland, France, Germany, Italy, Japan, Norway, United Kingdom, and United States. Four national bodies have made contributions: Australia, France, United Kingdom, and United States and copies of these contributions are available as SC 21 N..... A copy of these contributions can be obtained from the interim Rapporteur, Joaquin Miller (miller@shl.com). National body contributions have called attention to concepts, many of which were defined in RM-ODP Part 2, which will influence the development of the Enterprise language. They include:

- Aspects of **contract** concepts include domain, negotiation, obligation, validation, monitoring, enforcement, repository, legality, administration, environment, duration.
- Aspects of **role** concepts include agent, legal entity, owner.
- **Time** concepts include time point, time line, duration, duration bounds, time interval, epoch.
- **Communities** have contracts, invariants, roles, policies, actions, activities, services, service features.
- **Inter-viewpoint mapping** concepts include relationships of influence, determining, affecting, reference.
- Additional enterprise viewpoint concepts were suggested within subject areas of declarative specifications, invariants, pre-conditions, post-conditions, collective behavior, relationship management operations, reuse, genericity.

Harmonizing RFP responses with the national body contributions will provide submitters with the opportunity to influence not only the OMG specifications, but ISO standards as well.

4. Evaluation Models/Scenarios

[Evaluation model/scenario appropriate to the RFP.]