

Object Management Group

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CORBAmEd RFI 4

CORBA and HL7

Approaches and Considerations

Submissions Due: January 9, 1998

OMG Document # corbamed/97-09-15

26 September 1997

1. Introduction

This Request for Information (RFI) solicits information about requirements that will provide guidance to the CORBAmed Domain Task Force (DTF) of the Object Management Group (OMG) in the area of CORBA based HL7 implementation approaches. The overall goal of CORBAmed is to adopt vendor-neutral common interfaces that may improve the quality of care and reduce costs. CORBAmed DTF will utilize the OMG's open technology adoption process to standardize interfaces in the healthcare arena. The OMG encourages users, standards developers, consultants, systems integrators, and developers of healthcare related devices, instruments, applications, and systems to become involved with this process by responding to this RFI. OMG members and non-members may submit responses. Current compliance with OMG specifications is not a prerequisite for response to this RFI. The RFI response can consist of pre-existing product documentation.

1.1 Context and Scope

OMG's central mission is to establish an architecture and set of specifications to enable distributed integrated applications. Primary goals are the reusability, portability and interoperability of object-oriented software components in distributed heterogeneous computing environments. Much of OMG's efforts have been focused on establishing an enabling infrastructure based on open and standard interface definitions. The OMG is now standardizing common interfaces in vertical application domains. CORBAmed DTF issued its first RFI in January 1996 (OMG document number corbamed/96-01-01). This RFI had a wide scope including clinical, pharmacy, and insurance. It requested general guidance in the process of developing standard specifications for healthcare objects. From the responses to that RFI and other considerations by the task force the top few priorities were determined. They included Patient Identification (including Master Patient Index) issues, security/confidentiality issues, lexicon/vocabulary issues, and Computerized Patient Record (CPR) issues.

CORBAmed has issued a Patient Identification Service (PIDS) RFP (corbamed/96-11-08) to address some of the key interfaces needed by MPIS as well as patient identification by ancillary systems. A Lexicon Query Service (LQS) RFP (corbamed/97-01-04) was issued to standardize a common interface to vocabularies and lexicons with out standardizing the lexicon content. CORBAmed has a Security Work Group (WG) addressing the security and confidentiality issues for healthcare in various ways. The CPR issues are being dealt with by the Clinical Data WG within the CORBAmed DTF. A white paper was developed (corbamed/97-01-01) that describes some perspectives on the integration of clinical data for the patient record. CORBAmed has also issued an RFI for clinical observations(corbamed/97-xx-xx).

In the area of HL7 as a standard messaging approach, CORBAmed has established a liaison relationship with the HL7 standards group. One of the primary reasons for this liaison is the desire on the part of CORBAmed to not 'recreate the wheel'. CORBAmed desires to leverage the HL7 reference information model, other HL7 based initiatives, and other standards that help support healthcare communications. As part of that relationship, CORBAmed is attempting to assist HL7 by providing technical analyses regarding implementation approaches, and how to best take advantage of the capabilities inherent in the CORBA distributed object technology framework. We believe that there are a number of possible technical approaches that can be utilized, but are uncertain as to the most optimal approach. Several approaches have been defined already within HL7, through the SIGOBT. There are, we believe, a number of other organizations who have begun to implement CORBA based solutions, who are also using HL7 messages as the semantic backdrop to their implementations.

CORBAmed intends to use the responses to this RFI in the following manners:

- To guide CORBAmed in the facilitation of information sharing with HL7 related to technical recommendations, considerations and issues regarding implementation of CORBA based HL7 solutions.

- To assist CORBAmed in determining if there is a need for further work by CORBAmed (beyond recommendations to HL7) in this specific area. One possible work effort could be the development of an RFP for CORBA to HL7 mappings. Determination as to whether this is needed would be based on input from responders, and perceived need based on HL7 2.x and 3.0 directions and focus.
- To assist CORBAmed in understanding how they might be able to utilize HL7 in the context of CORBAmed based standards development.

2. Information Being Requested

This RFI is seeking information in the areas described below. Respondents are asked only to address those areas for which they have expertise and/or interest. Please consider the purpose of this RFI when responding so your time is spent on issues that will be helpful to reviewers.

In order to gain a broad based understanding of the approaches which have been used, or are under consideration, CORBAmed is issuing this Request for Information to the broader community of healthcare providers, payers, vendors, and other interested parties. CORBAmed is looking for information in the following broad areas. These are not meant to be all-inclusive, but are intended to provide some insights into the type of information this RFI seeks from responders.

- Mappings which have been used to implement CORBA based HL7 solutions (could be in the form of IDL with textual explanation).
- Automated approaches to transformation of HL7 ASCII encoded messages to CORBA 'objects' (for example, use of interface engine technology to manage transformation).
- Any object model examples which make use of the HL7 2.X specification or V3 model.
- Solutions developed in the healthcare arena that take advantage of general CORBA services such as naming, security, etc.
- Benefits and drawbacks (pros and cons) to implementation of CORBA based HL7 implementations (why would someone want to build or buy a CORBA based HL7 implementation over a message based 'traditional' implementation).
- Performance experiences in using CORBA based HL7 implementations (what has worked well, what has not?).
- Descriptions of relationships between HL7 trigger events and other CORBA services.
- Discussion of use of CORBA services in relation to the versioning concepts of HL7.
- Discussion of how greater interoperability was achieved through the approaches described.
- Other information which responders to this RFI believe might be useful to CORBAmed.

3. Instructions for Responding to this RFI

Companies responding to this RFI shall designate a single contact within that company for receipt of all subsequent information regarding this RFI. The name of this contact will be made available to all OMG members. Documentation submitted in response to this RFI will be available to all OMG members.

3.1 Format of RFI Responses

Although the OMG does not limit the size of responses, you are asked to consider that the OMG will rely upon volunteer resources with limited time availability to review these responses. In order to assure that your response receives the attention it deserves, you are asked to consider limiting the size of your response (not counting any supporting documentation) to approximately 25 pages. Much smaller responses are welcome as well.

If you consider supporting documentation to be necessary, please indicate which portions of the supporting documentation are relevant to this RFI.

NOTE: According to the Policies and Procedures of the OMG Technical Committee, proprietary and confidential material may not be included in any response to the OMG. Responses become public documents of the OMG. If copyrighted, a statement waiving that copyright for use by the OMG is required

and a limited waiver of copyright that allows OMG members to make up to at least twenty-five copies for review purposes is required.

3.2 How to Submit

OMG requests that 50 paper copies of the response, one copy in a common machine-readable format (typically ASCII, RTF, MIF, PDF), and any supporting documentation to be sent to the Technology Desk at the OMG. Responses to this RFI (and other communication regarding this RFI or related RFPs in the future) should be addressed to:

CORBAmEd Technology Desk
Object Management Group Inc.
Framingham Corporate Center
492 Old Connecticut Path
Framingham, MA 01701-4568
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Phone: +1-508-820 4300
Fax: +1-508-820 4303
Email: corbamed@omg.org
Web: <http://www.omg.org>

Responses to this RFI must be received at OMG no later than 5:00 PM US Eastern Time (22:00 GMT) January 9, 1998. The outside of packages/envelopes containing submissions or any other communication regarding this RFI should be clearly marked

“CORBAmEd RFI 4 RESPONSE”

NOTE: Your organization should be prepared to handle requests for additional copies of your response and should be prepared to handle requests for additional copies of supporting documentation.

3.3 Reimbursements

The OMG will not reimburse submitters for any costs in conjunction with their responses to this RFI.

4. Response Review Process and Schedule

Responses to this RFI are to be reviewed for the following express intention: providing OMG with technical information and guidance in writing the forthcoming RFP(s). Responders are asked to attend the RFI response review meeting(s) and to present their response to the CORBAmEd DTF.

4.1 Schedule

The schedule for responding to this RFI is as follows. Please note that early responses are encouraged.

TF recommends issuing the RFI	24 September 1997
RFI issued	26 September 1997
RFI responses due	9 January 1998

NOTE: This schedule is subject to change based on the number of RFI responses received and the information acquired from the responses.

4.2 Clarification of Responses

To fully comprehend the information contained within a response to this RFI, the reviewing group may seek further clarification on that response. This clarification may come in the form of verbal communication over the telephone; written communication; electronic communication; or a request to make a presentation of the response. CORBAmEd requests that submitters attend the meeting following the RFI deadline to present their responses.

Appendix A: Background on the Object Management Group and CORBAmed

OMG is dedicated to producing a framework and specifications for commercially available object-oriented environments. The Object Management Architecture (OMA) Guide, published in 1990 (revised 1995), provides an architecture with terms and definitions upon which all supporting interface specifications are to be based. Part of this architecture is the Reference Model which identifies and characterizes the components, interfaces, and protocols that compose the OMA.

For More Information:

More information on the Object Management Group can be obtained via the Internet at:

WWW Homepage <http://www.omg.org/>

OMG provides a document server. Send e-mail to **server@omg.org** with a message body:

help

get docs/doclist.txt

References:

Object Management Architecture Guide (OMA Guide), Object Management Group, September 1995.

Common Object Request Broker Architecture and Specification (CORBA), Revision 2, Object Management Group, August 1995.

CORBA services, Object Management Group, March 31, 1995, OMG TC Document 95-3-31.

CORBA facilities, Object Management Group, to appear late 1995. (Interim OMG TC Doc# 95-1-2)

HL7 Web site- www.mcis.duke.edu/standards/HL7/hl7.htm