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# Request For Quotation
# And
# Call For Participation
# in the
# OGC Web Services Initiative Phase 2
# and Demonstration

RFQ Issuance Date: 24~~1~~ November 2003

Proposal Due Date: 9 January 2004

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# 1 Introduction

## *1.1 Purpose*

The purpose of this Request For Quotation (hereafter referred to as RFQ) is to solicit your proposal in response to a refined set of requirements for the OpenGIS Consortium (OGC) OGC Web Services Initiative Phase 2 ~~Requirement Set 1~~ (OWS-2~~2.1~~). This request is issued as an RFQ for two reasons. The first reason is that OGC (in collaboration with a group of sponsors) is providing **cost-sharing** funds to partially offset expenses uniquely associated with the initiative. The second reason is that OGC intends to involve as many participants in the initiative as possible and thus is soliciting contributory proposals that will enhance and/or make use of the initiative outcomes.

## *1.2 Background*

On April 28, 2003 OGC issued a Request For Technology (RFT) for the OWS Phase 2 Interoperability Initiative. The initiative is intended to advance interoperable geospatial and imagery web services technology, support development of a multi-vendor portable demonstration, and feed requirements and recommendations into OGC's OpenGIS Specification process. The OWS-2 RFT was sponsored by General Dynamics, Lockheed Martin (LMC),~~-~~ NASA, and others.~~, and the National Imagery and Mapping Agency (NIMA).~~ The RFT requested candidate architectures and technologies applicable to the initiative sponsors' web service requirements. OGC received over 20 responses. As expected, RFT responses commented on the model presented in the RFT, and as hoped, and also offered additional ideas relating to both the refinement of and extensions to the model. These ideas have been incorporated, synthesized, and set into a programmatic framework that has resulted in this initiative.

The outcome of the RFT is the release of this RFQ for OWS-2. ~~2.1 and a follow on RFQ for OWS 2.2. Execution of OWS 2 in two phases is necessitated by the need to coordinate this initiative with other on-going sponsor activities. This RFQ for~~ OWS~~-~~2~~.1,~~ sponsor~~ed~~s include~~by General Dynamics,~~ Lockheed Martin (LMC), General Dynamics (GD), NASA~~,~~, ~~and~~ the Federal Geographic Data Committee (FGDC), and others. This initiative~~,~~ will focus on~~ requirements associated with Imagery Handling Services/Decision Support,~~ OWS Common Architecture, Information Interoperability,~~and~~ Imagery Handling Services/Decision Support, Technical Baseline Maturation, and OpenLS™ services. ~~The RFQ for OWS 2.2, sponsored by Lockheed Martin (LMC), and the National Imagery and Mapping Agency (NIMA), will focus on OWS Common Architecture, Technical Baseline Maturation, Information Interoperability, and OpenLS™/gCommerce services.~~ Responses to this RFQ~~ and subsequent support to OWS 2.1~~ by the proposing organizations will refine the model.

## *1.3 The RFQ Process*

The OWS Initiative Management team (consisting of OGC and the sponsors) has analyzed the responses to the RFT and established an initial Initiative Architecture (attached as Annex B). A set of sponsor requirements and a Work Breakdown Structure intended to achieve those requirements are presented in Annex A. A Concept of Operations for the OWS is attached as Annex C. This Concept of Operations describes the detail needed to understand the planned operation of the initiative for a suitable response to this RFQ. Annex C also contains an assignment of OWS week numbers to calendar weeks to allow for common communication of timeframes. Annex D details the communication plan for OWS.

This RFQ is being released to RFT respondents, OWS 1.1 and 1.2 RFQ respondents, and to organizations that did not respond to either the RFT or the OWS 1.1 and 1.2 RFQs. It requests support for broader OGC interoperability objectives on a voluntary basis. Specifically, any organization is invited to contribute to the design of the capability identified in the effort and explore architectural alternatives, performance characteristics, and ease of application development as direct input into the technology development activity of OGC. Participants will also be asked to examine the probable direction of the industry, propose evolutionary (or revolutionary) models for interoperable web services, and identify associated alternatives for study during the course of the initiative.

*All organizations interested in participating in the Testbed effort shall respond with a proposal.* Instructions for submitting proposals are provided in Section 4. Annex A provides requirements and the WBS to guide the development and structure of responses. The Concept of Operations describes how the proposals will be analyzed, used to revise the Testbed Architecture, the Concept of Operations, a Demonstration Concept for the Testbed effort, and other details associated with the process of determining participants in the Testbed. All participants should recognize that this does not reflect a change in OGC philosophy relative to reimbursing members for their support of OGC initiatives. The limited cost-sharing funding available is intended to help partially offset engineering costs incurred by participants in support of this effort. **No funds will be used to procure any proprietary hardware or software associated with this effort.**

Each organization with a role in the initiative shall sign a Participation Agreement that includes a statement of work (SOW) or a statement of participation (SOP) with OGC that outlines roles and responsibilities of each participant. By doing so, participants will agree to work together for the realization of the initiative goals and for the benefit of the industry. Draft versions of the SOW and SOP will be made available to all interested parties. Your SOW or SOP shall be submitted no later than 5 March 2004 if you wish to participate in OWS-2.

### *1.4 Benefits to Participants*

OGC perceives the OGC Web Services Initiative Phase 2 as a prime opportunity for vendors, users, and other interested parties to mutually define services, interfaces and protocols (and thus Interoperability Program Report (IPR) engineering specifications) in the context of a hands-on engineering experience expected to shape the future of geospatial and imagery related Web Services software development and Web data publication. The sponsors are backing their belief in this vision with cost-sharing funds to partially offset development costs associated with this capability and interoperable web service demonstrations. This offers OGC members a unique opportunity to recoup a portion of their expenses related to the OWS. Another benefit is that this effort has well-defined objectives, while providing a significant opportunity to explore alternatives in a unique hand-on engineering context. When this activity is successful, sponsorship for follow-on activities, including an already planned second phase to OWS, should continue and possibly increase significantly. The OWS initiative is expected to add to a significant core capability that continues to be the basis for a continued long-term initiative effort. Assuming success of this activity, another RFQ will be issued for the development of further interoperable web services. It is not necessary to be funded in the current phase of OWS to participate in any subsequent RFQ.

## 2 Context

The initiative sponsors have worked with OGC and each other to outline specific functional requirements that are representative of geospatial and imagery web service user requirements. Fundamental among these requirements is the basic need for interoperability between software components in multi-vendor settings. The high-level objectives of this effort are three-fold: first, to focus on common architecture for OGC Web Services, second, harmonize and mature the specifications in line with the common architecture, and finally, to support the development of OGC based implementations within the OWS architecture to meet sponsor application requirements. Documenting the interfaces and protocols used in the OWS and lessons learned in using them in the construction of demonstrations will be the means to realizing the last objective.

### *2.1 OpenGIS Consortium*

This RFQ assumes the recipient is not only familiar with the OGC mission, organization, and process, but is an OGC member. Non-member proposals will be considered only if a completed application for OGC membership accompanies or precedes a letter of intent stating that the organization in question will submit a proposal.

## *2.2 Operational Context*

The use cases provided in Annex B describe activities and information exchanges to be demonstrated in the initiative effort. The specific scenario that will be used in the demonstration effort will be developed according to the plans set forth in the Concept of Operations (Annex C) beginning with a draft Demonstration Concept. Specific OWS functional requirements are provided in Annexes A and B.

## *2.3 Technical Context*

This RFQ addresses the initial phase of what is expected to be a longer-term activity directed towards identifying and developing consensus-based open standards for use in interoperable web services. Participants in this initiative will implement some of the software components in the architectural cases provided in Annex B. Other than the architecture described in Annex B, participants will have flexibility in designing the interoperable interfaces and protocols for use in the demonstrations associated with the operational context. Specific technical requirements are provided Annex A.

The service requirements addressed in this RFQ are prioritized according to sponsor commitments for funding activities. The highest priority service requirements that have been funded are described as "Tier 1" requirements. Those that are described as "Tier 2" requirements have been noted by sponsors as being potential funding targets. ~~. In addition, requirements scheduled to be addressed in OWS 2.2 will be described as "Phase 2".~~ Annex B should be understood to be the definitive source for understanding the requirements within OWS-2~~.1~~.

Due to the need to coordinate with on-going sponsor activities, not all of the funded requirements have been formally identified as of the release date. Those requirements indicated by an * have been tentatively identified by sponsors for funding. An update to this RFQ will be issued once these requirements have been formalized.

**Table 1—Priority Service Requirements**

| ~~1~~Service/Requirement | Priority | Annex B Paragraph |
|---|---|---|
| 1 Common Architecture for WMS, WFS, CS-W, WCS, WOS~~Common Architecture for WMS, WFS, CS-W, WCS, WOS~~ | | |
| 1.A RIM~~RIM~~ | Tier 2~~Phase 2~~ | 3.2.1.2~~GSCT 1.1.6.2.1.2~~ |
| 1.B SIM~~SIM~~ | Tier 2~~Phase 2~~ | 3.2.1.2~~GSCT 1.1.6.2.1.2~~ |
| 1.C WSDL~~WSDL~~ | Tier 1~~Tier 1, Phase 2~~ | 3.2.1.2~~FGDC, GSCT 1.1.6.2.1.2~~ |
| 1.D SOAP~~SOAP~~ | Tier 1~~Tier 1, Phase 2~~ | 3.2.1.2~~FGDC, GSCT 1.1.6.2.1.2~~ |
| 1.E UDDI~~UDDI~~ | Tier 1~~Tier 1, Phase 2~~ | 3.2.1.2~~FGDC, GSCT 1.1.6.2.1.2~~ |
| 2 Information Interoperability~~Information Interoperability~~ | | |
| 2.A Application Schema from GML Schema~~Application Schema from GML~~ | Tier 1*~~Phase 2~~ | 3.4.1.2.1~~NIMA st 2, GSCT 1.1.6.1.3~~ |
| 2.B WFS Support for GML Level 0 Profile~~WFS Support for GML Level 0 Profile~~ | Tier 1*~~Phase 2~~ | 3.4.1.2.2~~NIMA st 3~~ |
| 2.C Integrated Reference Client | ~~Phase 2~~ | 3.4.1.2.2, |

| ~~1~~Service/Requirement | Priority | Annex B Paragraph |
|---|---|---|
| supporting:~~Information Interoperability System~~ | | 3.3.5.6~~GSCT 1.1.6.1.3~~ |
| 2.C.1 WFS~~Distributed WFS Queries~~ | Tier 1*~~Phase 2~~ | ~~GSCT 1.1.6.1.3~~ |
| 2.C.2 WMS~~WMS Context~~ | Tier 1*~~Phase 2~~ | ~~GSCT 1.1.6.1.3~~ |
| 2.C.3 CS/W | Tier 1* | |
| 2.C.4 WCS | Tier 1* | |
| 2.C.5 WOS | Tier 2 | |
| 2.D WFS support for schema translation | Tier 2 | 3.4.1.2.2 |
| 2.E Application schema compliance with ISO 19109 | Tier 2 | 3.4.1.2.3 |
| 2.F Semantic repository support for schema transforms | Tier 2 | 3.4.1.2.4 |
| 3 Image Handling/Decision Support~~Image Metadata~~ | ~~Tier 1~~ | ~~NASA~~ |
| ~~3.C~~3.A Image Archive Server Enhancements~~Image Processing services~~ | Tier 1~~Tier 1~~ | 3.5.1.2-2, 5~~NASA~~ |
| ~~3.D~~3.B Image Metadata~~Chaining and Orchestration~~ | Tier 1~~Tier 1~~ | 3.5.1.2-2~~GD, Collexa, NASA~~ |
| ~~3.E~~3.C Image Processing Services~~Decision Support~~ | Tier 1~~Tier 1~~ | 3.5.1.2-3~~NASA~~ |
| ~~4~~3.D Chaining and Orchestration~~Technical Baseline Maturation~~ | Tier 1 | 3.5.1.2-4 |
| ~~4.A~~3.E Decision Support Client~~Integrated Reference Client supporting:~~ | Tier 1 | 3.5.1.2-1~~NIMA st 5, GSCT 1.1.6.1.3~~ |
| ~~4.A.1~~4 Technical Baseline Maturation~~WFS~~ | ~~Tier 1~~ | |
| ~~4.A.2~~4.A WFS ~~WMS~~ | Tier 1~~Tier 1~~ | 3.3.3.3 |
| ~~4.A.5~~4.B WMS ~~WOS~~ | Tier 2~~Tier 2~~ | 3.3.3.3 |
| ~~4.B.2~~4.C CS/W ~~Compliance~~ | Tier 1~~Tier 1, Phase 2~~ | 3.3.3.3~~FGDC, GSCT 1.1.6.2.1.1~~ |
| ~~4.C.2~~4.D WCS | Tier 1 | 3.3.3.3 |
| ~~4.D.1~~4.E Location Services ~~Improvement~~ | Tier 2~~Phase 2~~ | 3.3.3.3~~GSCT 1.1.6.2.1.2~~ |
| ~~4.D.2~~4.F GML ~~Compliance~~ | Tier 2~~Tier 1~~ | 3.3.3.3~~FGDC~~ |
| ~~4.E.2~~5 Open Location Services | | |
| ~~4.E.2~~5.A Enhance Existing OLS Services~~Compliance~~ | Tier 2 | 3.6.5.1 |
| ~~4.F~~5.B Harmonize ADTs with GML 3.0~~WCS~~ | Tier 1* | 3.6.5.2 |
| ~~4.F.1~~5.C Enable SOAP messaging~~Improvement~~ | Tier 2~~Phase 2~~ | 3.6.5.3~~NIMA st 4~~ |
| ~~4.F.2~~5.D Enable seamless indoor/outdoor location services~~Compliance~~ | Tier 2~~Tier 1, Phase 2~~ | 3.6.5.4~~NIMA st 4, FGDC, GSCT 1.1.6.2.1.1~~ |
| ~~4.G~~5.E Add Tracking and Traffic services~~GML~~ | Tier 2 | 3.6.5.5<br>3.6.5.6 |

* Requirements that are awaiting formal funding authorization.

### *2.4 System Context*

The architecture presented in Annex B is based on the current "mainstream" approach to web services and was selected to provide the best opportunity for meeting the sponsors' requirements. This architecture is not intended to drive the physical system configuration, but to identify the interfaces and protocols within the current mainstream approach to web services. For example, details of the initial interfaces and protocols and how they are distributed across physical systems in the initiative are not included in the Architecture – those decisions will be left to the participants.

## 3 Your Role in the Testbed

There are several possible roles that organizations may play in the initiative. These are:

- Developer of one or more software components implementing interfaces and protocols agreed in the early stages of the initiative for one or more of the services described in Annexes A and B,
- Developer of demonstrations and tests of the implemented software components, and/or
- Provider of data, personnel, software, hardware, or facilities that will contribute to the overall success of the initiative.

Participants should propose specifically against the Tier 1 Requirements provided by the sponsors (see Annex A), but may go beyond that request and propose in-kind contributions that address Tier 2. Participants should note that sponsors are only funding Tier 1 Requirements in this current RFQ.

## 4 RFQ Submission Information

### *4.1 General Terms and Conditions*

Documentation submitted in response to this RFQ will be distributed to members of OGC staff, the IP Team, and sponsor staffs. Submissions will remain in the control of this group and will not be used for other purposes without prior written consent of the proposing organization. Please note that you will be asked to release the content of your proposal (less financial details) once you agree to participate in the testbed effort. Proprietary and confidential information must not be submitted under this request.

Participants will be selected to receive cost sharing funds on the basis of adherence to the requirements stipulated in this RFQ and the overall quality of their proposal. The primary objective of OWS Sponsors is to use cost sharing funds to promote the development of Standards-based Commercial Off-The-Shelf (SCOTS) software. We encourage respondents to exploit the results of innovative R&D efforts, but the objective is SCOTS. Respondents are asked to define the migration path for producing SCOTS solutions. Those proposing organizations not selected for cost sharing funds are encouraged to participate in OWS on an in-kind basis.

Each participant will be required to enter into a contract with OGC. This agreement will define participant responsibilities, and by signing the contract all participants will agree to work together towards the common goals of the initiative. Further details on this issue are found in the Concept of Operations (Annex C).

### *4.2 Submission Instructions*

Submissions to this request shall be "complete"; i.e., your submission must provide all information requested in section 5 to be considered further. Submissions shall use the response template provided in the RFQ package. The submission shall consist of a technical volume and a cost volume. An outline with page

limits is provided in section 5.1. Reviewers will be instructed to not read or evaluate any materials in excess of the page limits. Each requirement set description shall begin on a new page.

## 4.3 How to Submit

Submit an electronic copy of your proposal to the OpenGIS Technology Desk (techdesk@opengis.org) at OGC. Microsoft Word® 6.0 or higher format is preferred; however, Portable Document Format or Rich Text Format is acceptable.

Send responses to this RFQ (and other communication regarding this RFQ) to:

| | |
|---|---|
| Regular mail: | OpenGIS Technology Desk |
| Or Express packages[1]: | Open GIS Consortium, Inc. |
| | 4899 North Old SR 37 |
| | Bloomington, IN 47408-9239 |
| | USA |

Proposals must be received at OGC no later than 1700 EST (2200 UTC) 9 January 2004.

## 4.4 Questions and Clarifications

Questions and requests for clarification should be sent electronically to the OpenGIS Technology Desk (techdesk@opengis.org), by mail to the address in section 4.3, or by facsimile transmission (+1 812 334 0625). All clarifications will be posted to the OWS-2 WWW Site (http://www.opengis.org/initiatives/?iid=7) and to the OGC Technical Committee electronic mail reflector.~~All clarifications will be posted to the OGC WWW Site (http://ip.opengis.org/ows/index.html) and to the OGC Technical Committee electronic mail reflector~~

**Bidder's Conference**

OGC will hold a telephonic bidder's conference on December 18, 2003. Questions must be sent by electronic mail to bidder@opengis.org by 2200 GMT on December 15, 2004 to be considered during the conference. The conference call will be repeated at three times during the day to accommodate participants in European, American and Asian time zones (please check http://www.opengis.org/initiatives/?iid=7 after December 15, 2003 for dial-in details and exact times).~~.~~

## 4.5 Reimbursements

The OGC will not reimburse submitters for any costs incurred in connection with preparing proposals in response to this RFQ.

## 4.6 Schedule

The following table details the events and activities associated with this RFQ (more details can be found in Annex C):

| | |
|---|---|
| RFQ Issued | 24~~1~~ November 2003 |
| Bidders Conference | 18 December 2004 |
| RFQ Responses Due | 9 January 2004 |

| | |
|---|---|
| Decision TEM I | 3 February 2004 |
| Decision TEM II | 6 February 2004 |

# 5 RFQ Format and Content

## *5.1 Proposal Outline*

As part of this RFQ archive you will find several templates: the response template, the cost sharing request spreadsheet template, and the in-kind contribution spreadsheet template. Proposing organizations shall use these templates in preparing their proposals. The proposal should follow the outline:

**Technical Volume**

- Cover page
- Overview (Not to exceed two pages; will not contribute to technical evaluation)
- Proposed contribution (Basis for Technical Evaluation)
    - Common Architecture (Not to exceed seven pages)
    - Technical Baseline Maturation (Not to exceed seven pages)
    - Image Handling Service/Decision Support (Not to exceed seven pages)
    - Information Interoperability (Not to exceed seven pages)
    - OpenLS™~~/gCommerce~~ (Not to exceed seven pages)
- Proposed contribution cross referenced to WBS (Contributes to Management Evaluation)

**Cost Volume (Not to exceed seven pages)**

- Level of Effort
- Facilities
- Hardware
- Software
- SCOTS or Standards-based Open Source Maturation Plan (Not to exceed 2 pages)
- Cost sharing request (Excel template for reporting costs is archived with the RFQ)
- In Kind contributions (Excel template for reporting in-kind contributions is archived with the RFQ)

Each of these Sections is described below.

## *5.2 Cover Page*

Provide the name(s) of the proposal submitter(s) and point of contact information. Teams should list all teammates and point of contact information for each. When submitting point of contact information, please provide both a business/financial and technical point of contact.

## *5.3 Overview*

Provide an introduction to the contents of your proposal and its benefits.

## *5.4 Proposed Contribution*

Describe your proposed contribution to the initiative based on your desired role (consistent with the Testbed Architecture (Annex B). Please do not just repeat your RFT or your OWS Phase 1 Thread Set 1 RFQ response. The initiative emphasis is on interoperable solutions to the sponsors' functional requirements and your RFQ response should be developed from that perspective. Justify your approach.

### 5.4.1 Specification Development

If you are proposing to contribute to the development or support of the development of interoperability specifications for interfaces, operations, encodings, messages, or other relevant technologies, please indicate your views on the Architecture and the modifications/additions you would recommend OWS pursue during the course of the initiative. Also indicate what personnel you would assign to these tasks and what background experiences qualify them to support this key activity.

All proposing organizations are strongly encouraged to address this activity in their proposals. Please provide details on how your technical representatives will participate in this activity. Roles that your technical representatives can perform are Interoperability Program Report author, schema editor, model designer, or technical contributor. Technical contributors shall write or design subsets of the specification. Everyone is expected to review work in progress.

### 5.4.2 Component Development

If you are proposing to contribute to the development of components within the Testbed Architecture, please include in your proposal as much detail as possible concerning the operating system, hardware, programming language, and proprietary software requirements or constraints that relate to your proposed development effort. Please provide the SCOTS migration path for proposed components. We strongly encourage organizations that are proposing to develop a server component to develop a client component that exercises the functionality of the server(s) being provided.

*If you wish to provide a candidate starting point (i.e., an interface or protocol definition) for any of the cases in which you propose to have a role, please contribute this with your proposal.*

### 5.4.3 Demonstration or Test Development

If you are proposing to develop demonstrations or tests, please provide as much detail as possible concerning your proposed effort. Delineate aspects of the sponsor scenarios to which you believe you can contribute. In particular explain how your work will show the sponsor's desired level of interoperability.

*Do not assume a single vendor demonstration; rather the demonstration will be showing how your technology can interoperate with other participant's technology.*

### 5.4.4 Data

If you are proposing to contribute data to the effort, please indicate the format of the data (if applicable) and any proprietary software access requirements (if applicable). Please include the geographic coverage of the data, a thematic description of the data, geodetic context of the data and any other relevant metadata. Please also indicate alternate formats or access capabilities that you are willing to support, if necessary. Match your data contribution with a use case in Annex B.

#### 5.4.5 Personnel

If you are proposing to contribute personnel to the initiative, please indicate the capabilities and experience of the personnel, location and mobility information (in other words, will the personnel need to remain at their present location? Will you support travel?). Indicate which personnel would be able to participate in kickoff activities and other testbed site activities.

### *5.5 Proposed Contribution Cross Referenced To WBS*

Review the WBS found in Annex A and map your proposed contribution to the task categories and items found there. Indicate which requirements are being met with your contributions in the descriptions of activities that your organization proposes to undertake.

### *5.6 Level of Effort Estimate*

Please provide an estimate of the value of your proposed contribution, including engineering, management, communications, travel, and so forth. Please begin this section on a new page so that it can be separated from the main body of your proposal.

#### 5.6.1 Facilities

If you are proposing facilities, please include as much detail about the configuration of hardware and software at the facility, the network access and restrictions (if any), and the level of operational support in place at the facility. Please provide information about your organizational approach to configuration management.

#### 5.6.2 Hardware

If you are proposing to contribute hardware to the effort, please include a complete description of the hardware.

#### 5.6.3 Software

If you are proposing to contribute software to the effort, please include a complete description of the software. You must include information about the operating environments that you intend to support in the context of the testbed.

#### 5.6.4 SCOTS or Standards-based Open Source Maturation Plan

If you are proposing in the technical volume to provide software components that are either enhancements of your existing product line or entirely new products which exercise the specifications developed or enhanced during the course of this initiative then you must provide a SCOTS maturation plan. This plan shall identify the product in question, the specifications exercised by the product and the anticipated date of public availability of the product.

### *5.7 Cost-Sharing Request*

This section is *required* only from proposing organizations requesting cost sharing funds. Please provide a requested amount of cost-sharing funds (in US Dollars) and provide details of the costs that are being offset (e.g., labor category, number of hours, and hourly rate). Note that the sponsors intend to provide cost-sharing funds for only those activities uniquely attributable to initiative participation; e.g., a recipient should not request funds to offset costs that would have otherwise been incurred and funded through some other source such as internal research and development funding. This section must include a certification that the proposed reimbursable costs would not be otherwise incurred in support of non-Testbed activities. Use the attached cost-sharing template to itemize the costs being offset. This should be included in the section beginning with Level of Effort Estimate.

### *5.8 In-Kind Contributions*

Please provide an indication of the in-kind contributions that your organization will make to the OWS initiative. This should reflect such contributions as labor, equipment, software, or data. Use the attached in-kind contribution template to itemize the contributions being provided. The sponsors and OGC will use this information in the development of future initiatives. This should be included in the section beginning with Level of Effort Estimate.

# 6 Evaluation Criteria

OWS-2 responses will be evaluated according to criteria set by the Sponsors. Those criteria can be divided into three areas: Technical, Management, and Cost.

### *6.1 Technical*

The Technical criteria are described below.

- Requirements are addressed
- Response shows reasonable technical approach that supports accomplishing requirements
- Creativity and originality
- Appears implementable
- Is relevant to initiative goals

### *6.2 Management*

- Adheres and addresses Work Breakdown Structure
- Willingness to work in collaborative environment
- Achieves Sponsor goal of enhancing availability of SCOTS or standards-based open source products in the market place

### *6.3 Cost*

- Cost-share request is reasonable for proposed effort
- In-kind contribution is of value to initiative