

The following questions and answers were collected by email and telecon as of August 8, 2008. These are presented in approximate order of the RFQ contents, with reference to specific sections where applicable. Please send any corrections or additional questions to: techdesk@opengeospatial.org.

Revision log:

8-12-08	Arctur, Percivall, Alameh	First draft
8-18-08	Arctur, Percivall, Simonis	ebRIM, GPW client, and other q's
8-28-08	Arctur	WMS 1.3 tests, DGIWG profile of WMS 1.3

1. **Questions related to RFQ Main Body**

Q-MB01: Pg.1, 1.2 Background – last sentence of third paragraph is unclear:

"After analyzing the sponsors input, the OGC Interoperability Team recommended to the sponsors that the content of the OWS-6 initiative be organized around the following six five threads over two initiative phases:"

A-MB 01: There is only one initiative phase, not two. This sentence should read:

"After analyzing the sponsors input, the OGC Interoperability Team recommended to the sponsors that the content of the OWS-6 initiative be organized around the following five threads:"

Q-MB 02: Pg.2, 1.3 RFQ Process – Reference is made to SOW and SOP templates, will OGC provide these templates?

A-MB 02: OGC will provide a template for SOW and SOP agreements. This is not required until the participant has been selected to work on OWS-6. Your initial proposal should follow the outline in Section 5 Proposal Format and Content.

Q-MB 03: Pg.3, 2.2 Operational Context – How many demonstrations will there be? What is the plan in the Concept of Operations for draft demonstration concept?

A-MB 03: There may be multiple separate demonstrations, depending on how closely the 5 threads coordinate with each other. The Draft Demonstration Concept is intended to get the project teams to start early to consider and prepare for their demonstrations. This includes thinking about data sources, specific use cases and scenarios to illustrate the requirements, deliverables, technology developed, etc. Each project team will work out its own demonstration concept. Note that OWS-4 had two demonstrations, of which one was highly coordinated across threads, while OWS-5 had fifteen distinct screen-capture videos. See also Q7/A7 below.

Q/A-MB 04: Pg.4, 4.2 Submission Instructions – Typo correction. Sentences should read: “your submission must provide all information requested in section 5... An outline with page limits is provided in section 5.1.”

Q-MB05: Can sponsors or their subsidiary companies bid for funded items in the RFQ?

A-MB05: This could happen in the case of a large organization in which one group (or subsidiary org) is a funding sponsor and another group is a funded participant. This is permitted, assuming an acceptable "conflict of interest mitigation" approach is documented, such as the approach to "firewalling" the two groups to eliminate cross-communication. Also relevant is that OGC requests responses to the RFQ/CFP have two separate documents: a Technical document and a Cost document. Circulation of the Cost portion of the responses is mainly restricted to OGC staff.

Q-MB06: Can a bidder submit more than one proposal so as to clarify their treatment of unrelated topics/threads? Conversely can a bidder submit a single proposal dealing with a cross thread response?

A-MB06: Yes, a bidder may submit a single proposal dealing with a cross thread response. This would be preferred to generating multiple proposals.

Q-MB 07: Pg.4, Section 3 Participant's Role (data, software or hardware provider) – Are the participants required to submit their software, hardware, etc to OGC?

A-MB 07: No, the requirement is for the software to be made available and usable during the demos and for six months afterwards. The only exception is in the case of the open source reference implementations for compliance testing, where the participants are required to submit the source code.

Q-MB 08: Please clarify the "provider of data" role.

A-MB 08: Typically OGC is not seeking delivery of data, software or hardware. On occasion, data is provided by one participant and hosted on another participant's service. Some organizations host data services such as current weather conditions. OGC has on occasion, but rarely, requested software as a deliverable. We cannot recall an instance of OGC seeking a hardware delivery.

Q-MB 09: Pg.5, Master Schedule – What is the demonstration? What is the linkage between the Demonstration Milestone and the draft demonstration concept?

A-MB 09: See also Q3/A3 above. The Demonstration Milestone represents completion of technology development, and creation of a video/screen capture illustrating the technology developed and requirements met for each initiative thread.

Q-MB10: The schedule seems longer than previous.

A-MB10: The duration is similar to previous considering the Final Delivery date. The TC date in the Master Schedule is when presentations are made. All development and editing of documents should be complete by the Final Delivery date (April 17, six months after the kickoff).

Q-MB 11: Pg.6, 5.2 Cover Page – Should bidders list all teammates on the cover page?

A-MB 11: "Teammates" refers to collaborating organizations, not to individuals within one organization. If you are teaming with another organization for your proposal, you would indicate a Business point of contact and Technical point of contact for both organizations. Please see the Proposal Template (Word doc).

Q-MB 12: Pg.6-7, 5.1 and 5.4 Proposed Contribution – Bidders should propose their contribution by threads or by their desired role? It seems different on p.6 to p.7.

A-MB 12: We are asking you to describe your intended contribution based on your desired role within a given thread, such as providing data content, web service software development, specification or document editor, etc. Section 5.4 simply amplifies on what is briefly outlined in Section 5.1.

Q-MB13: Pg.7, 5.4.2 Component Development – first paragraph has confusing text:

“Proposing organizations are encouraged to develop a server component to develop a client component that exercises the functionality of the server(s) being provided.”

A-MB13: This should read:

“Proposing organizations developing a server component are encouraged to develop a client component that exercises the functionality of the server(s) being provided.”

Q-MB 14: Pg.8, 5.7 Cost-Sharing Request – Please explain cost-sharing.

A-MB 14: Testbed development and deliverables require cost-sharing. The testbeds are designed with the assumption that participants are already involved in these activities and that the cost-share funding is to offset the activities very specific to the testbed only. Typically, funded recipients provide 3 to 4 times the level of in-kind contributions for every unit of cost-share funding. Some proposals received in the past were purely in-kind. Only in very rare instances have participants been fully funded by the testbed sponsors.

Q-MB 15: Pg.8, 5.8 In-Kind Contributions – Is it mandatory to include in-kind contributions?

A-MB 15: The extent of in-kind contribution is one of the evaluation criteria.

Q-MB 16: What is the amount of funding available for the testbed, and how is it subdivided across threads?

A-MB 16: The total funding for the Testbed is comparable to previous OWS Testbeds (approx. US\$1.5M). The funding is allocated across all cost-share participants, IP Team and OGC staff. Testbed funding of participants aims to cover costs that are directly and uniquely associated with Testbed activities. It is assumed that participants are conducting separately funded activities regarding OGC standards, e.g., internal research and development. Funding of participants is directed toward integrating the separately funded activities with testbed activities. Criteria for determining funding of cost-share participants (RFQ/CFP Main body, Section 6) include Technical, Management and Cost criteria.

Q-MB 17: Is the funding available for the registry component the same in each of the referenced threads (SWE,GPW,DSS). Is there any asymmetry in the funding – i.e. more for SWE, less for GPW etc. or if the funding levels for the registry stuff was more or less the same in all threads.

A-MB 17: Funding is available for the registry objects in each of the threads: SWE, GPW, DSS. Funding has not been assigned to the level necessary to answer the question. So at this point there is no asymmetry beyond that implied by difference of the items to be registered in each thread.

Q-MB 18: In the case of the cross- thread items, is the funding the same in all threads?

A-MB 18: For cross-thread funded items, one thread is considered the primary thread for purposes of documentation. For example web security services is most fully described under the GPW thread, but the components will support multiple threads.

Q-MB 19: Pg.8, 6.1 Technical – Do all requirements for a thread have to be addressed in a proposal, or just partial requirements?

A-MB 19: The RFQ/CFP asks participants to state which requirements they wish to fulfill. It is not expected that any one participant can satisfy all requirements of an initiative thread. Each initiative thread will have a team which is assembled in order to fulfill all the requirements for that thread.

2. **Questions Related to Annex A**

Q-A01: Can we use the same resource to represent different kinds of representative? For example, there is one resource for technical representative, but this one might support functional specification and installation guide.

A-A01: Your representatives can support as many roles as they are competent to perform.

3. **Questions Related to Annex B**

Q-B01: There is an issue about the availability of components developed in earlier testbeds and whether participants in later testbeds such as OWS-6 will have access to them. It is frustrating that we see the development of increasingly refined and proprietary components and services but cannot reuse them after a given testbed. How does OGC maintain available services that demonstrate the on-going persistent evolution of the maturing specs? What is the availability of a service beyond OWS?

A-B01: A service provided in an OWS Testbed must be kept on-line for 6 months. In some cases this has been extended to one year. There are other OGC activities that aim to provide a persistent infrastructure of services available using OGC standards, e.g., OGC Network, OGC/ AGILE/ EUROSDR persistent testbed, GEOSS pilot.

Q-B02: Since the number of ebRIM objects required (e.g. Services, units, styles, schemas etc) is unknown, how do you intend to control the scope for the registry/catalogue item?

A-B02: A positive aspect of ebRIM catalogues is their ability to handle many types of objects. Proposals that address how their solutions quickly enable adding ebRIM objects will be considered a desirable aspect of the proposal. [We also recognize the need to limit the scope of work for catalog implementations to be practical.](#)

[SWE:](#)

- [- Observables](#)
- [- Procedures](#)
- [- Feature of Interest](#)
- [- Observed property](#)

[GPW:](#)

- [- Data set metadata \(ISO 19115 & 19139\) \(example: include but not limited to DDMS metadata\)](#)
- [- Service metadata \(ISO 19119\)](#)
- [- GML Application Schema](#)
- [- Conflation 'Rules Set'](#)

DSS:

- Portrayal Rule Set

- Symbol Set

- SLD objects

- See also OGC 05-112, section 5.6, for information about storing Symbol Encodings in a CSW catalog.

Q-B03: Pg.18, 3.8 Baseline Standards – the table lists WSDL 2.0 only, not 1.1. Is WSDL 1.1 allowed? OWS-5 considered that WSDL version, and the ISO WSI-Basic 1.1 Profile of WSDL 1.1 removes the inherent problems of the WSDL 1.1 Note from W3C. WSDL 2.0 is a better spec than original WSDL 1.1, but is not widely used.

A-B03: Use OWS-5 Recommendation (WSDL 1.1) as baseline and consider WSDL 2.0 in discussion of kickoff and provide discussion in responses. A similar issue occurs in the use of SAML 1.1 vs 2.0. OGC should develop recommendation on versions of WSDL, SAML, etc. We have no way to know in advance what the deployed services will use. The main goal is interoperability.

Q-B04: Section 4.1.6.5 refers to a "catalogue service backed by up by an ebRIM engine". This appears to misunderstand the point of the CSW-ebRIM profile. Normally a catalogue is a deployed instance of a registry. I can understand that someone might kluge something together like this for a quick and dirty demo, but the RIM support must be part of the catalogue – don't see how one would be compliant otherwise. Can you clarify?

A-B04: The intent of the statement was to say that a Sensor Registry is to be implemented using the OGC CSW-ebRIM Registry Service.

Q-B05: In Section 4.4.6.1, Figure 4-41 seems to be missing the mechanism for the creation of the Portrayal Rules. Typically (at least in one key scenario) this requires access to the feature schema either from a registry or from a WFS in order to enable the building of the Portrayal Rules (e.g. SLD/SE). Typically interaction with a registry is preferred since it allows for the fact that a single schema (or schema component) may be used in multiple WFS. Is this omitted intentionally? Should symbols come from a registry or a WFS request?

A-B05: Figure 4-41 did not intentionally leave out the mechanism for creating portrayal rules; this is an area of ongoing conceptual development within the ISO 19117 portrayal editing committee, which informed this portion of the RFQ. The current SLD/SE approach does not make use of registries for either portrayal rules or symbols, but the ISO 19117 team wishes to see the use of registries in this context. See also Figures 4-38 and 4-39 which support this functionality.

Q-B06: In which thread exactly do you think we can take part using our open source GML Viewer and GML/web services access? In the AIM or in others? If in the AIM thread, the viewer might be one of the Aviation Clients, which access web services with AIXM data and weather data and visualize them for staff and pilots. Should our GML Viewer be used on hand-helds or just on tablet PCs/desktop PCs?

A-B06: Your viewer may be proposed as one of the Aviation Clients but you should also check the requirements of the other clients mentioned in the RFQ (DCS-enabled client and SWE client specifically) to see if you can propose to those as well. As for whether it is to be used on hand-helds or tablet PCs, that's up to you. Just make sure you describe the platforms that your software can run on in your response.

Q-B07: Is the weather data exchange model (WXXM) available somewhere as well? Is it based on XML/GML as well?

A-B07: Information about WXXM can be found at http://www.eurocontrol.int/aim/public/standard_page/met_wie.html. The description says that it's based on OGC O&M so it's based on XML/GML. If you need more information, we will try to get it from the sponsors.

Q-B08: Are there already participants for WFS and other web services?

A-B08: The providers of WFS and other services will be selected based on the responses received. If you're interested in providing such services, make sure you include that in your response.

Q-B09: In Section 4.5.1, this statement is made: "A major focus of OWS6-CITE will be in clearly documenting the approach to defining Abstract Test Suites.", yet there is not a deliverable report identified to document this approach. Should this document on ATS be a deliverable for the CITE thread?

A-B09: Insufficient funding was received to support this ER.

Q-B10: In Section 4.5.2 these 2 CITE deliverables sound like a duplicate:

- Document WMS 1.3 Change Requests as result of updating ATS/ETS
- WMS 1.3 ATS Change Request

A-B10: The first of these is a CR to WMS1.3, while the second is for the Abstract Test Suite - it is the document that results from the writing of compliance tests.

Q-B11: In Section 4.5 CITE – what about requirement for compliance test needing to have 3 implementations?

A-B11: There is now a requirement that there must be 3 implementations that pass a compliance test before the test can be considered for adoption by the Planning Committee. There is no requirement that the 3 implementations must be on-line.

Q-B12: In Section 4.2.2.7.1 “Enhancements to the UML-GML Application Schema (UGAS) Tool ShapeChange, and Related Development”, there is no mention of a client to visualize the Urban MSD (CityGML) data, and no such client mentioned in the list of deliverables. Section 4.2.3.2.

A-B12: This is an oversight in the list of requirements and deliverables. There is a funded requirement for client(s) for 3D display of the UrbanMSD instance data.

Q-B13: A questions regarding the RFQ, Annex B, 4.2.2.7.1, item d 3): Could you clarify how units dictionaries would be used in the process of deriving a GML application schema from the NAS. The architecture and the relevant use case do not provide any information about this requirement.

A-B13: The requirement is not with respect to using the dictionaries themselves in the process of converting from UML to GML, but in encoding references to dictionaries and dictionary entries appropriately in the application schema. The dictionaries or the individual items in the dictionaries will be accessed only later by applications processing or validating instance data.

Assume that there is an external resource managing a GML dictionary (or a codelist). That resource is denotable by (and is intended to be accessible via) a URL, and individual items in that dictionary (or codelist) are similarly accessible. At the moment in the NAS we are treating all (e.g.) UoM as being implicitly defined by the NFDD-per-attribute; in our UML schema we carry UoM as a tag 'unitMeasure' merely for "documentation". This information is lost in our GML schema. A GML user has to already know that the NFDD declares that a given attribute value is "always metres".

We would like to tweak our mechanism(s) so that we explicitly declare (using an XML attribute/pair) a namespace/name combination for UoM in our GML schema -- initially this will simply replicate what the NFDD currently states, however later we will allow greater flexibility so

that, e.g., one might substitute 'foot' for 'metre' in a GML instance document. I realize that GML handles UoM as a special-case dictionary; we want to handle both the general-case dictionary and this particular special-case.

Similarly the NAS currently manages all "lists of codes" as <<enumeration>> that is fixed for a version but may vary between versions. We'd like to support a (selective) move to using <<codeList>> where the value is a codespace/code pair that is validated against an external resource. This is the intended situation with the 19139-encoding. We can then revise our dynamic lists of "allowables" without issuing a new GML schema.

Basically in both of these cases (dictionaries, codelists) we just need to work out tag-changes to the NAS and some minor adjustments to ShapeChange to use those UML tags to create the

corresponding GML schema. I think that we currently have most of the needed mechanism in-place and that mainly I simply need to be educated on how best to employ it; but I do think that there are some ShapeChange tweaks required. One may be in the area of Schematron in that we want to be able to assert that when the UML Schema specifies a particular namespace/codespace that conforming instance documents actually only allowed-values/codes specified by the resource. The GML schema simply carries the tag "placeholders"; we pass the tag-value restrictions through into Schematron.

There is an element of dynamic evaluation here. We'd also like to consider the possibility that dictionary/codelist members have a 'status' and may be deprecated such that an instance evaluation might return either 'Valid' or 'Allowable but Deprecated' as well as 'Invalid'. So perhaps our UoM dictionary includes 'Ton' and 'Tonne' with both having status 'Valid' initially but later 'Ton' is assigned status 'Deprecated' (or equivalently 'Retired').

We will use the MDR as our online resource. Although (3) speaks specifically about dictionaries I believe that codelists are handled the same way and both situations should be addressed simultaneously.

Q-B14: We have proposed some recommended items that could be added to expand the WMS 1.3 compliance test, yet still doesn't test every optional part of the specification. There are limitations on what how extensively some requirements can be tested. For example,

- How many requested coordinate reference systems are sufficient to be compliant?
- How many different auto-projections need to be tested?
- Do we need to address Filters for time and elevation?

A-B14:

- How many CRS: Elevation CRS should at least address Mean Sea Level; need to address WGS84, possibly NAD27, if there is a common European one.
- Auto Projections. We are not quite sure what the use case is and if it's necessary. We are checking with DGIWG folks to see if they have an opinion.
- Filters for time and elevation: yes.

Additionally bidders need to make sure the full WMS 1.3 is checking everything that the DGIWG profile is asking for at a minimum. The DGIWG profile and WMS 1.3 tests do overlap, but there are more specific conditions on some of the WMS 1.3 requirements in the DGIWG profile.

Q-B15: Follow-up on previous question: is the DGIWG profile a subset of WMS 1.3? It appears to have additional items not part of WMS 1.3.

A-B15: Response from DGIWG: There are clauses that may require some developments that may not be found by default in COTS software (e.g. shadowed rendering for terrain elevation data, or

displaying measures information in response to a GetFeatureInfo request) but to my knowledge the profile does not use any extension in terms of the interface definition or parameters (e.g. shadowed rendering will be enacted through the "style" keyword, while displaying measures will take place using html, xml, or png output of GetFeatureInfo)

Outside of that, many clauses are just configuration clauses, although "just" configuring a server that way might require work much beyond the editing of a configuration file using a notepad (e.g. configuring the metadata layer associated with a layer requires to preprocess original data's metadata).

Finally there are recommendations or future work items that might rely on extensions (e.g. specifying the quality factor to use for the compression ratio associated with a format like jpeg).

Note: DGIWG welcomes feedback from participants in this testbed in case they have indeed identified some parameter that is used in this profile and that might not be WMS 1.3 baseline compliant. Such feedback would be integrated as comments to be processed in the same manner as other comments received during the ongoing DGIWG Ballot on the subject, as long as they can be provided by the end of October.

4. Questions Related to Proposal Template

Q-P01: Can you please clarify where risks should be identified and discussed – should it be directly under heading 2 prior to 2.1 or in 2.1 through 2.8 each in turn?

A-P01: To the extent you can identify risks associated with the subsections of your contribution, eg, with regard to data, or personnel, or some other category, describe such risks in the relevant subsection. If you can see some overarching area of risk that crosses categories then you could include it in an additional subsection under 2-Proposed Contribution.

Q: Can potential participants submit further questions via email?

A: Yes to techdesk@opengeospatial.org